Video Cassette Recorder

VR988 / 50

Instructions for use
Mode d'emploi
Instrucciones de manejo

Let's make things better.

PHILIPS

SAFETY PRECAUTIONS

CAUTION

RISK OF ELECTRIC SHOCK DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This "bolt of lightning" indicates uninsulated material within your unit may cause an electrical shock. For the safety of everyone in your household, please do not remove product covering.

The "exclamation point" calls attention to features for which you should read the enclosed literature closely to prevent operating and maintenance problems.

WARNING: **TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.**

CAUTION: **To prevent electrical shock, match wide blade of plug to wide slot, and fully insert.**

ATTENTION: **Pour éviter les chocs électriques, introduire la lame la plus large de la fiche dans la borne correspondante de la prise et pousser jusqu'au fond.**

FCC Warning: **Any unauthorized changes or modifications to this equipment void the user' authority to operate it.**

For Customer Use
Enter below the Serial No. which is located on the rear of the cabinet.
Retain this information for future reference.

Model No. _____

Serial No. _____

S-VHS

Introduction

Congratulations on purchasing your new VCR.

You can't wait to get it working, but before you do, spare a few moments to read this brief introduction to the world of video recording. It may repay you handsomely in terms of improved results, and avoiding of costly mistakes.

Positioning

Do not place the VCR directly on top of, or underneath, your TV set. Ensure that there is at least 20 cm between the VCR and the TV set, and that air can circulate freely through the ventilation openings of the VCR.

Note to the Cable TV System Installer: This reminder is provided to call the Cable TV system installer's attention to Article 820-40 of the National Electrical Code, which provides guidelines for proper grounding – in particular, specifying that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as possible.

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

IMPORTANT

Audio-Visual material may consist of copyrighted works which must not be recorded without the authority of the owner of the copyright.

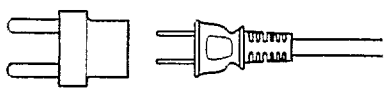
Please refer to relevant laws in your country.

VCR Maintenance

- Remove any light adhesive stick-on labels from the video cassette tape before putting the tape in the VCR since these labels may be jammed in the VCR.
- Periodical maintenance is required to maintain your VCR's performance. Your VCR has an automatic head cleaner, but the video heads eventually will require cleaning or replacement. Cleaning or replacement of the video heads should be performed only by an authorized service center.

Conversion Plug

- Use the conversion plug (provided) depending on the type of your AC WALL outlet for connection to countries outside of USA and Canada.



VCR Plus+C' and PlusCode are trademark of Gemstar under License from Gemstar Development Corporation.

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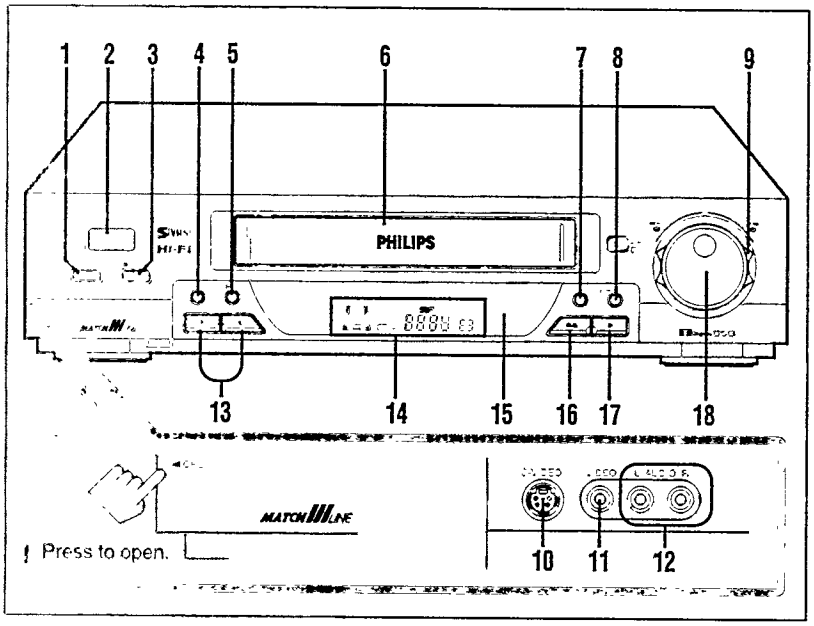
ESCRIPTION OF CONTROLS

Front Panel



1 INCREDIBLE PICTURE button

Makes the playback picture sharper when the lamp is lit. (→P.16)

2 POWER button

- Turns the VCR on or off
- Sets the VCR for an unattended recording (timer recording) after timer settings are completed (→P.19, P.22)

3 REC (record)/OTR ● button

- Starts recording when pressed once. (→P.14)
- Starts a recording for 30 minutes to 9 hours long when pressed more than once. The shut-off time increases in 30 minute intervals (→P.15)

4 MENU/EXIT button

Display the main menu.
Press again to exit from the menu operations. (→P.11)

5 ►/OK button

Changes the selection when using the menus (→P.11)

6 Cassette Compartment

Where a video cassette is inserted.

7 VCR/TV button

Selects which built-in tuner (either TV's or VCR's) to use.
Pressing this button turns on or off the VCR indicator on the display.
When the VCR indicator is on:
The VCR's tuner becomes active for the TV. You cannot select the channels on the TV.
When the VCR indicator is off:
The TV's tuner becomes active for itself. So you can watch another TV broadcast while recording a TV broadcast selected with the VCR's tuner. (→P.14)

8 PAUSE/STILL ⏸ button

Stops the tape during recording (pause) or playback (still picture). (→P.14, P.18)
Press again to resume normal recording.
Press PLAY ► to resume normal playback.
Activates slow motion picture when pressed for more than 2 seconds during playback.

9 Shuttle ring

- Rewinds or fast forwards the tape when the tape is not running. (→P.14)
- Starts reverse or forward rapid visual search during playback or still picture mode. (→P.14, P.18)

10 S-VIDEO input jack

For connecting to the S-video output jack on another VCR or a portable video camera. (→P.23)

11 VIDEO input jack

For connecting to the video output jack on another VCR or a portable video camera. (→P.23)

12 AUDIO input jacks

For connecting to the audio output jacks on another VCR or a portable video camera. (→P.23)

13 CHANNEL ▼ /▲ buttons

- Changes the channels on the VCR. Release at a desired channel.
- Moves the cursor up and down when using the menus. (→P.11)
- Adjusts the tracking during playback, still picture, and slow motion picture (→P.18)

14 Display window

See page 6.

15 IR (infrared) remote sensor

Receives the signal from the (IR) remote control.

16 STOP/EJECT ■ / ⏏ button

Stops the tape when the tape is running. (→P.14)
Press again to eject the cassette when the tape is not running. (→P.14)

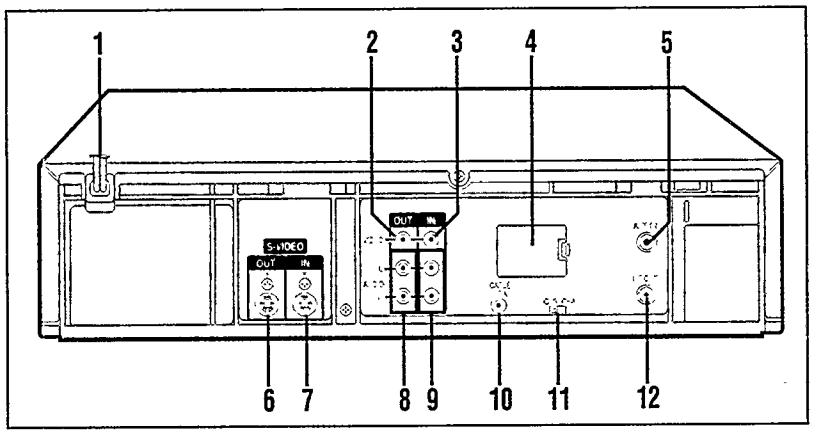
17 PLAY ► button

Starts normal playback. (→P.14)

18 Jog dial

Advances or reverses the picture frame by frame in the still picture mode. (→P.18)

Rear Panel



1 AC (alternating current) power cord
Connect the AC power cord to an AC outlet.

2 VIDEO OUT (output) jack
For connecting to the video input jack on a TV or another VCR. (✈P.10)

3 VIDEO IN (input) jack
For connecting to the video output jack on another VCR. (✈P.23)
Or for connecting to the video output jack on Cable box or DBS tuner.

4 Backup battery compartment
Place the backup battery.

5 ANT. (antenna) IN (input) terminal (from Antenna)
Connect your antenna, Cable box, or DBS tuner to this terminal. (✈P.10)

6 S-VIDEO OUT (output) jack
For connecting to the S-video input jack on a TV or another VCR. (✈P.10)

7 S-VIDEO IN (input) jack
For connecting to the S-video output jack on another VCR. (✈P.23)

8 AUDIO OUT (output) jack
For connecting to the audio input jack on a TV or another VCR. (✈P.10)

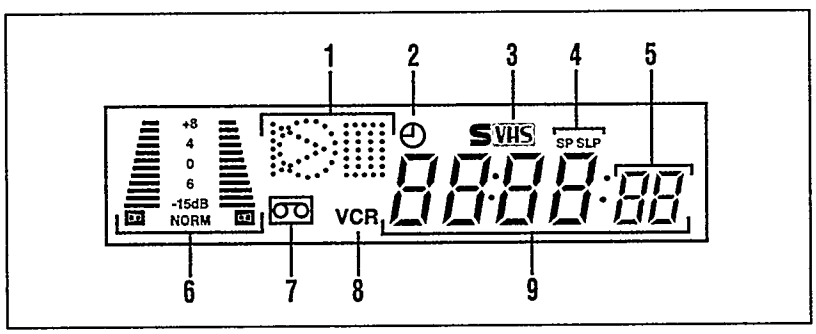
9 AUDIO IN (input) jack
For connecting to the audio output jack on another VCR. (✈P.23)
Or for connecting to the audio output jack on Cable box or DBS tuner.

10 CABLE BOX jack
Connect the supplied controller. (✈P.25)

11 CH3/CH4 selector
Set the video output channel to the one not used for regular TV broadcasting in your area. (✈P.10)

12 RF OUT (output) terminal (to TV)
Use the supplied RF coaxial cable to connect this terminal to the UHF/VHF input terminal on the TV. (✈P.10)

Display Window



1 Operation mode indicators
O: Lights up during recording.
▷: Lights up during playback.
▯▯: Lights up during a pause.

2 ◴ (Timer) indicator
Lights up when the VCR is set for an unattended recording (timer recording). (✈P.19, P.22)

3 S-VHS indicator
Lights up while playing back a tape recorded in S-VHS format, or while recording on an S-VHS tape using S-VHS format.

4 Speed indicator
Indicates the tape speed.
SP – Standard Play
SLP – Super Long Play

5 Channel indicator
A channel number selected with the TV tuner built-in the VCR appears.
When the external line input is selected: "L-F" appears for the front panel jacks or "L-1" appears for the rear panel jacks.

6 Audio Mode Indicator
Indicates audio output mode currently selected.
NORM (normal):
Lights up when the monaural sound of the normal audio track is played back.
▣ ▣:
Lights up when a broadcast is received or a stereo programme is played back.

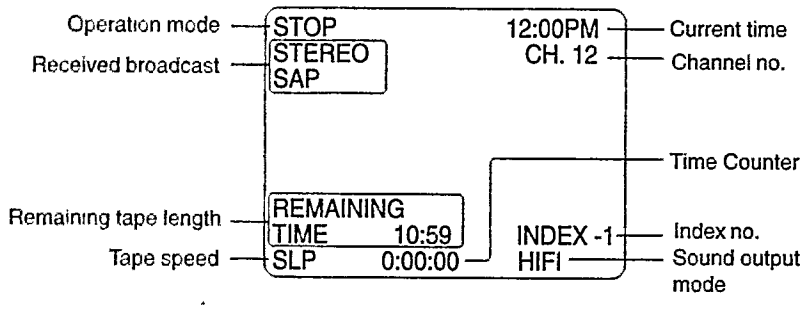
7 ▣ (Cassette-in) indicator
Lights up when there is a cassette in the VCR.

8 VCR indicator
Lights up when the TV tuner built in the VCR is active for the TV.

9 Digital clock/counter
- Normally the present time appears.
- When a tape is inserted, the time counter appears (and is reset to 0:00:00).
If you always rewind your tapes completely, you can use this counter reading as an index to find where a programme starts.

On-Screen Display

The following information (VCR operating status) appears on the TV screen. (→P.16)



Note on the displayed information

- *When you playback a thin tape like a T-160 cassette tape or compact video cassette tape (VHS-C), the remaining tape length will flash.*
- *If the remaining tape length is more than 10 hours, "A" will be shown to indicate the hour of the actual remaining tape length. (Ex. "A:20")*

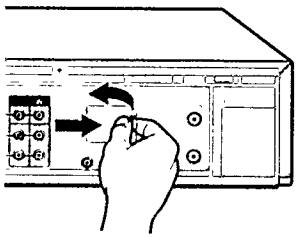
To insert the backup battery:

IMPORTANT

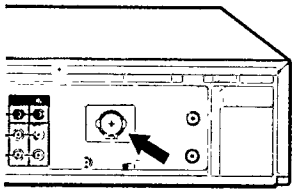
Before inserting the backup battery, plug the AC power cord into an AC outlet (→P.10). Without connecting the AC power cord, the backup battery will be used up immediately.

Note:
Without this backup battery, this VCR can keep the memorized timer recording contents and clock time only for a few minutes if a power interruption occurs.

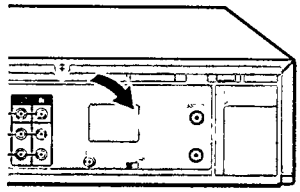
1 Open the battery compartment lid for the backup battery.



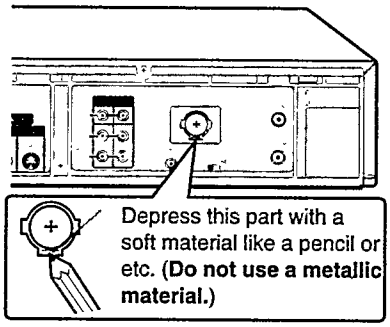
2 Install the battery —CR2025— matching polarity indicated inside the battery compartment.



3 Replace the lid.



To remove the battery:



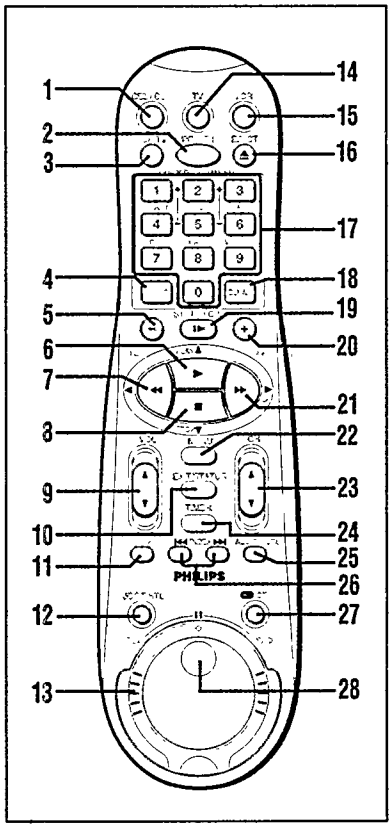
WARNING

On lithium battery

The battery used in this device may present a fire or chemical burn hazard if mistreated. Do not recharge, disassemble, heat above 100°C or incinerate.
Replace battery with Panasonic (Matsushita Electric), Sanyo, Sony or Maxell CR2025; use of another battery may present a risk of fire or explosion.

- Dispose of used battery promptly.
- Keep away from children.
- Do not disassemble and do not dispose of in fire.

Remote Control



Using this remote control to operate other components

You can use this remote control to operate your TV, Cable box or DBS tuner.

To operate these components, see page 24.

1 CBL/DBS button

Makes the remote control ready for operating the Cable box or DBS tuner.

2 POWER button

Before using this button, press VCR, TV, or CBL/DBS to select your target component.

- After pressing VCR:
  - Turns the VCR on or off.
  - Sets the VCR for an unattended recording (timer recording) after timer settings are completed. (→P.19, P.22)
- After pressing TV, turns the TV on or off.
- After pressing DBL/DBS, turns the Cable box or DBS tuner on or off.

3 VCR/TV button

Selects which built-in tuner (either TV's or VCR's) to use.
Pressing this button turns on or off the VCR indicator on the display.
When the VCR indicator is on:
The VCR's tuner becomes active for the TV. You cannot select the channels on the TV.
When the VCR indicator is off:
The TV's tuner becomes active for itself. So you can watch another TV broadcast while recording a TV broadcast selected with the VCR's tuner. (→P.14)

4 SPEED button

Selects the tape speed for recording (SP, SLP). During playback, the tape speed is automatically selected (SP, SLP). (→P.14, P.19, P.22)

5 STILL/SLOW – button

During a slow motion picture, adjust the playback speed in the reverse direction. (→P.18)
Press PLAY ► to resume normal playback.
Activates slow motion picture when pressed for more than 2 seconds during playback.

6 PLAY ► / ▲ button

Before using this button, press VCR or TV to select your target component.

- After pressing VCR:
  - Starts normal playback. (→P.14)
  - Moves up the cursor when using the menus. (→P.11)
- ONLY FOR PHILIPS TVs:
  After pressing TV, operates the TV's menus.

7 ◄◄ (Rewind) / ◄ button

Before using this button, press VCR or TV to select your target component.

- After pressing VCR:
  - Rewinds the tape. Also, during playback, starts rapid reverse visual search. (→P.14)
  - Goes back to the previous menu screen when using the menus. (→P.11)
- ONLY FOR PHILIPS TVs:
  After pressing TV, operates the TV's menus.

8 STOP ■ / ▼ button

- Stops the tape. (→P.14)
- Moves down the cursor when using the menus. (→P.11)

9 VOL (volume) ▲ / ▼ buttons

Changes the TV volume.
Release at desired volume.

10 EXIT/STATUS button

Before using this button, press VCR, TV, CBL/DBS to select your target component.

- After pressing VCR:
  - Displays the time counter, present time, channel number, and remaining tape length. (→P.16)
  - Exits from menu operations when using the menus. (→P.11)
- After pressing TV:
  For PHILIPS TVs:
  - Displays the TV's on-screen information.
  - Exits from TV's menu operations when using the TV's menus.

  For other manufacturers' TVs:
  Functions as the ENTER button if your TV requires pressing ENTER after selecting a channel number.
- After pressing CBL/DBS:
  Functions as the ENTER button if your Cable box or DBS tuner requires pressing ENTER after selecting a channel number.

11 SKIP button

Skips playback for 30 seconds by time counter reading.
When pressed more than once up to 4 times, the search time increase in 30-second intervals up to 2 minutes. (→P.18)

12 JOG/SHTL (Shuttle) button and lamp

Activates the jog dial and shuttle ring on the remote control when the lamp (the button itself) is lit. (→P.18)

13 Shuttle ring

- Rewinds or fast forwards the tape when the tape is not running. (✈P.14)
- Starts reverse or forward rapid visual search during playback or still picture mode. (✈P.14, P.18)

14 TV button

Makes the remote control ready for operating the TV.

15 VCR button

Makes the remote control ready for operating the VCR.

16 EJECT ▲ button

Ejects the cassette. (✈P.14)

17 Number buttons (0, 1, 2, 3, 4, 5, 6, 7, 8 and 9)

Before using these buttons, press VCR, TV, or CBL/DBS to select your target component.

- Press to select a channel on the VCR, TV, Cable box, or DBS tuner. To select channels 1 to 9, press 0 then the channel you want. For example, for channel 4, press 0 then 4.
- Also used to programme the Timer Recordings. (✈P.19)

18 CLEAR button

Erases unwanted timer programmes. (✈P.20, P.22)

19 STILL/SLOW I► button

Stops the tape during recording (pause) or playback (still picture) temporarily. (✈P.14, P.18)
Press again to resume normal playback or recording.

20 STILL/SLOW + button

During a slow motion picture, adjust the playback speed in the forward direction. (✈P.18)

21 ►► (Fast forward) / ►/OK button

Before using this button, press VCR or TV to select your target component.

- After pressing VCR:
  - Fast forward the tape. Also during playback, starts rapid forward visual search. (✈P.14)
  - Selects the items on the menus or goes to the next menu screen when using the menus. (✈P.11)
- ONLY FOR PHILIPS TVs: After pressing TV, operates the TV's menus.

22 MENU button

Before using this button, press VCR or TV to select your target component.

- After pressing VCR, calls up the main menu. (✈P.11)
- ONLY FOR PHILIPS TVs: After pressing TV, calls up the TV's main menu.

23 CH (channel) ▲ / ▼ button

Before using this button, press VCR, TV, or CBL/DBS.

- After pressing VCR, changes the channels on the VCR. Release at a desired channel.
- After pressing TV, changes the channels on the TV. Release at a desired channel.
- After pressing DBL/DBS, changes the channels on the Cable box or DBS tuner. Release at a desired channel.

24 TIMER button

Display the Timer Recording menu. (✈P.19, P.22)

25 AUDIO/MUTE button

Selects sound output mode. (✈P.17)
Turns off the TV sound.

26 INDEX I◄◄ / ►►I buttons

Locates an index marked at the beginning of every recording. (✈P.15)

27 REC (record)/OTR button

- Start recording when pressed once. (✈P.14)
- Starts a recording for 30 minutes to 9 hours long. When pressed more than once, the shut-off time increases in 30-minute intervals. (✈P.15)

28 Jog dial

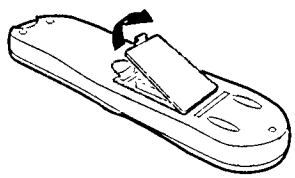
Advances or reverses the picture frame by frame in the still picture mode. (✈P.18)

Note:
The following buttons will light when you press them.

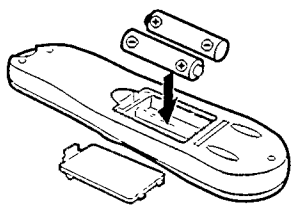
- *PLAY ►*
- *STOP■*
- *►► (Fast forward)*
- *◄◄ (Rewind)*
- *VOL (ume) ▲/▼*
- *CH (annel) ▲/▼*

To insert the batteries:

1 Remove the battery compartment lid from the bottom of the remote control.



2 Install two batteries — R6(SUM-3)/AA — matching polarity indicated inside the battery compartment.



3 Replace the lid.

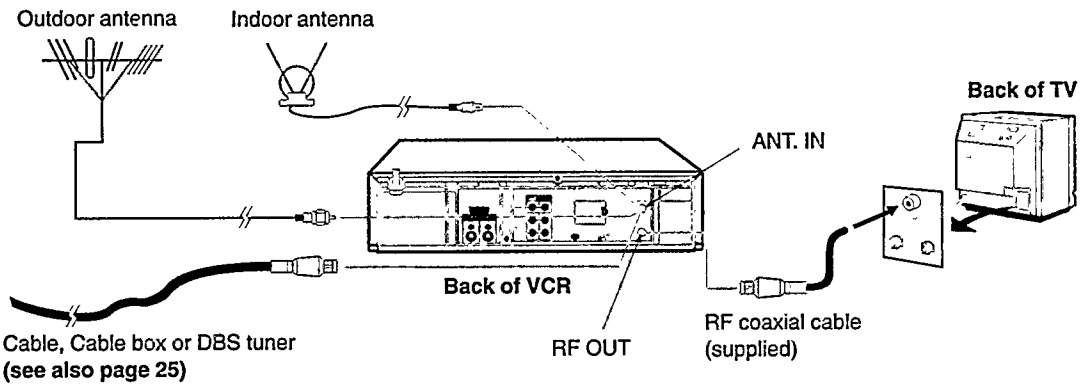
Note:
This remote control and batteries are supplied accessories.
Check to make sure they are included.
Also, check "Specifications" to see what other accessories are included.

CAUTION
On Battery Replacement
Do not mix old and new batteries. (Also never mix alkaline batteries with manganese batteries.)

VCR to TV Connection

Connection Diagram

1 **Disconnect the antenna, Cable box, or DBS tuner from the TV and the AC power cord of the TV from the AC outlet.**
2 **Connect the antenna, Cable box, or DBS tuner to the VCR.**
3 **Connect the VCR to the TV using the RF coaxial cable.**
4 **Plug the AC power cords of the VCR and TV into the AC outlets.**
5 **Insert the backup battery. See page 7.**

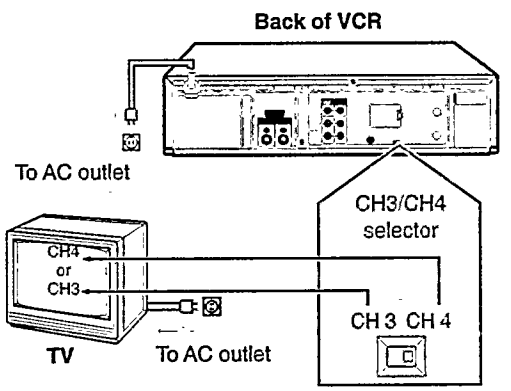


Set Your Video Channel

Set the CH3/CH4 selector to either CH3 or CH4 whichever channel not used in your area.
If both are used, select the channel giving a better picture when playing a tape.

To watch a picture from this VCR on the TV, select the same channel (either channel 3 or 4) on the TV, you have set the CH3/CH4 selector to on this VCR.

CAUTION
Do not plug the AC power cords until all connections are completed.



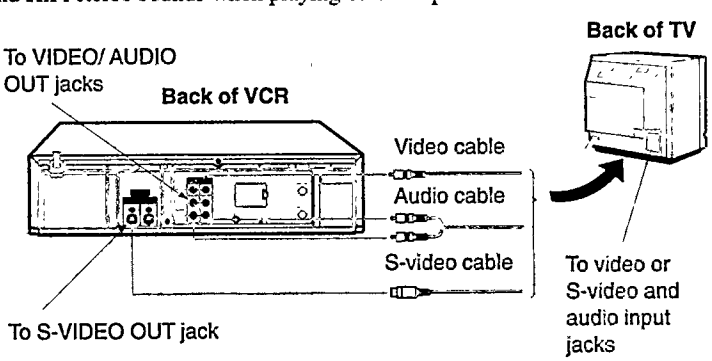
VCR to AV TV Connection

With this connection, you can get better pictures and HiFi stereo sounds when playing back a tape.

To watch a picture from this VCR on the TV, select the video input on the TV, to which this VCR is connected.

- If your TV has an S-video input jack, using an S-video cable to connect this VCR and TV gives you the best possible picture quality.

NOTE:
If your TV is not of stereo type, you can connect the VCR to your audio system to reproduce HiFi stereo sound.
Refer also to the manual supplied with your audio system.



For USA and Canada users ONLY.
This VCR sets the clock automatically when power is first connected. Firstly, make sure the antenna cable is connected. Then, connect the VCR's power plug to an AC outlet, "AUTO" will appear on the display panel until the clock is set. The current time will appear on the VCR display panel. You can only perform this function if your area has PBS channel that sends the clock setting data.

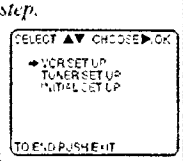
Operations hereafter are described using the buttons on the remote control unless mentioned otherwise.
The buttons on the front panel having the same (or nearly same) name or same (or nearly same) mark function exactly the same as those on the remote control.

Menu Operations

Before operating the VCR, be familiar with the menu operations first because most of the features built into the VCR can be available only on the menus.

1 Press VCR on the remote control.
- *When using the buttons on front panel, skip this step.*

2 Press MENU (or MENU/EXIT on the front panel) to display the main menu screen.



3 Press ▲ or ▼ (or CHANNEL ▲/▼ on the front panel) to select a desired feature on the menu, then press ▶/OK.

4 When you select a feature, go to the section in this manual and follow the instructions described there.

To go back to the previous menu screen, press ◀.

To exit from the menu operations, press EXIT/STATUS (or MENU/EXIT on the front panel again).

Note:
Menu operating buttons function only when a menu is on the TV screen. When no menus is on the TV screen, they function differently.

Turning On VCR

For the first time you turn on this VCR, some basic settings must be done first before going on to further operations.

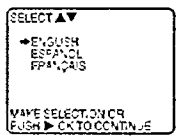
Make sure....
- Your VCR, TV, and antenna are connected correctly.
- The remote control operation mode is set correctly for operating your target component.
  - Press VCR to operate the VCR.
  - Press TV to operate the TV.

On TV

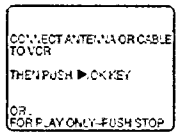
1 Turn on the TV.
2 Select the video channel (either channel 3 or channel 4, which you have selected with the CH3/CH4 selector on the VCR) or the video input (to which this VCR is connected).

Select the Language

1 Press VCR.
- *When using the buttons on front panel, skip this step.*

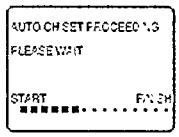


2 Press POWER.
The VCR turns on, then the menu for selecting the language appears.
3 Press ▲ or ▼ to select either "ENGLISH," "ESPAÑOL" (Spanish), or "FRANÇAIS" (French) whichever you want to use on the TV screen.
4 Press ▶/OK.
The following message appears on the TV.



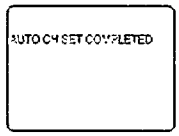
Start Channel Set

Press ▶/OK again to programme the receivable channels automatically.
The following message appears on the TV.



The local channel receivable in your area are automatically programmed in the VCR tuner.
- If "NO TV SIGNALS" appears on the TV, an antenna, Cable box, or DBS tuner is not connected correctly. Check the connection and press ▶/OK again.

When the auto programming is completed
The following message appears on the TV, and the lowest channel will be tuned in.



To cancel the auto programming, press STOP ■.
"TUNER NOT SET" appears for a while.

To turn off the VCR

Press POWER again.
The VCR turns off.
Next time you turn on the VCR, the menu for selecting the language will not appear, and messages and menus will be displayed in the language you have selected.

To change the channels on the VCR

Press CH ▲/▼.
Selected channel numbers appear on the display. When the line input is selected;
- For front jacks, "L-F" appears on the display and "A/V IN FRONT" appears on the TV screen.
- For rear jacks, "L-1" appears on the display and "A/V IN REAR" appears on the TV screen.

IMPORTANT

The setup and adjustment procedures explained hereafter are written under the following conditions:
- You have turned on the TV and selected the video channel (or video input).
- You have turned on the VCR.

Clock Setting

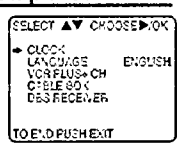
There are two ways of setting the clock — Auto Clock Set and Manual Clock Set.
Auto Clock Set is only possible when using this VCR in North America.

Make sure....
- To make each entry within 10 seconds; otherwise, the VCR cancels the clock setting and you will have to start over again.

Manual Clock Set

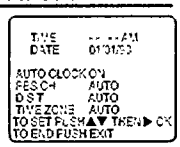
1 Select Initial Setup Mode

1 Press VCR.
2 Press MENU.
3 Press ▲ or ▼ to select "INITIAL SET UP" then press ►/OK.
The Initial Set Up menu appears.



2 Select Clock Set Mode

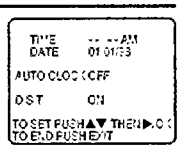
Press ▲ or ▼ to select "CLOCK" then press ►/OK.



3 Set Time

1 Press ▲ or ▼ to set the time. "AUTO CLOCK" is automatically set to "OFF."
- Each time you press the button, the set time changes by 1-minute intervals. If you hold the button, the set time changes by 30-minute intervals.

2 Press ►/OK.



4 Set Month and Day

1 Press ▲ or ▼ to set the month and day.
- Each time you press the button, the set date changes by 1-day intervals. If you hold the button, the set time changes by 15-day intervals.

2 Press ►/OK.

5 Set Year

1 Press ▲ or ▼ to set the year.
- Each time you press the button, the set date changes by 1-year intervals. If you hold the button, the set time changes rapidly.

2 Press ►/OK twice.

6 Set Day Saving Time

1 Press ▲ or ▼ to select the Day Saving Time (D.S.T.) setting you want.
ON: Select this to activate the day saving time setting.
OFF: Select this to deactivate the day saving time setting.

2 Press ►/OK.

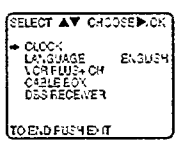
7 Start Clock

Press EXIT/STATUS.
The internal clock starts and the normal TV screen resumes.

Auto Clock Set

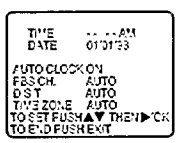
1 Select Initial Setup Mode

1 Press VCR.
2 Press MENU.
3 Press ▲ or ▼ to select "INITIAL SET UP" then press ►/OK.
The Initial Set Up menu appears.



2 Select Clock Set Mode

Press ▲ or ▼ to select "CLOCK" then press ►/OK.



3 Set Auto Clock

1 If "AUTO CLOCK" is "OFF," press ►/OK until Auto Clock Setting (OFF) blinks, then press ▲ or ▼ to set it to "ON."
2 Press ►/OK.

4 Set PBS Channel

1 Press ▲ or ▼ to select the PBS (Public Broadcasting Service) channel ("AUTO" or preset channel from which the VCR receives the current time signal.
- Normally select "AUTO." The VCR will find an appropriate channel.
- When "AUTO" does not work correctly, select a PBS channel manually from preset channel number.

2 Press ►/OK.

5 Set Day Saving Time

1 Press ▲ or ▼ to select the Day Saving Time (D.S.T.) setting you want.
AUTO: Normally select this.
ON: Select this only when "AUTO" does not work correctly.
OFF: Select this to deactivate the day saving time setting.

2 Press ►/OK.

6 Set Time Zone

1 Press ▲ or ▼ to select your residential area.
- Normally select "AUTO." The VCR will find a proper channel in your area.
- When "AUTO" does not work correctly, select your residential area manually.

2 Press ►/OK.

7 Start the Clock

1 Press EXIT/STATUS.
2 Press POWER.
The VCR starts setting the internal clock ("Auto" appears on the display).
Leave the VCR turned off until the current time appears on the display.

If Auto Clock Set does not work correctly

"– – : – –" appears.

If this happens, do the clock setting again using one of the following.

- Repeat the Auto Clock Set procedure and select a PBS channel manually in step 4.
- Set the clock manually.

To reset the clock

By repeating the Manual Clock Set or Auto Clock Set procedures, you can reset the clock.

- *When you set "AUTO CLOCK" to "ON," the current time setting will be lost.*

Notes on the Clock Set

For North America customers only:

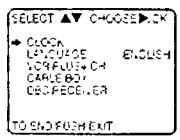
- *When "AUTO CLOCK" is set to "ON," the clock time will be corrected every hour (except midnight hours) using the time signal sent from the PBS channel.*
- *When the Day Saving Time is set to "AUTO" or "ON," the clock will automatically advance by 1 hour from 2 AM to 3 AM on the first Sunday of April, and delay by 1 hour from 2 AM to 1 AM on the last Sunday of October.*

Selecting Language

You can also change the language used on the menus any time you want.

Select Initial Setup Mode

1 Press VCR.
2 Press MENU.
3 Press ▲ or ▼ to select "INITIAL SET UP" then press ►/OK.
The Initial Set Up menu appears.



Select Language

1 Press ▲ or ▼ to select "LANGUAGE."
2 Press ►/OK to select the language on the TV screen.
Each time you press the button, the language changes as follows:

┌→English→Spanish→French─┐

Finish Setting

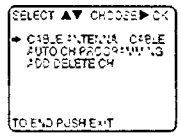
Press EXIT/STATUS.

Channel Setting

When you want to do channel setting by yourself, follow this procedure. You can also add or delete channels.

Select Tuner Set Up Mode

1 Press VCR.
2 Press MENU.
3 Press ▲ or ▼ to select "TUNER SET UP" then press ►/OK.
The Tuner Set Up menu appears.



Select TV or Cable

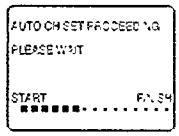
1 Press ▲ or ▼ to select "CABLE/ANTENNA."
2 Press ►/OK.
Each time you press the button, the setting changes.

CABLE:
Select this if you receive your TV channels from a cable TV system.

ANT (Antenna):
Select this if you receive your TV channels from an antenna.

Start Auto Channel Set

Press ▲ or ▼ to select "AUTO CH. PROGRAMMING" then press ►/OK. The following message appears on the TV.



The local channels receivable in your area are automatically programmed in the VCR tuner.

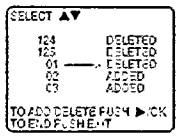
When the auto programming is completed

"AUTO CH.SET COMPLETED" appears for a few seconds. Then, the lowest channel will be tuned in.

To add or delete a channel

You can add or delete a channel manually if you want.

1 Press VCR.
2 Press MENU.
3 Press ▲ or ▼ to select "TUNER SET UP" then ►.
4 Press ▲ or ▼ to select "ADD/DELETE CH" then press ►/OK.
5 Press ▲ or ▼ to select a channel to add or delete.
- You can also use the CH ▲/▼ buttons and number buttons to select a channel.



6 Press ►/OK.
Each time you press the button, "DELETED" and "ADDED" are alternately selected for the selected channel.

DELETED:
Select this to delete the channel.

ADDED:
Select this to add the channel.

7 Press EXIT/STATUS to exit from the menu operations.

Playback

Make sure....
- Your VCR, TV, and antenna are connected correctly.
- The remote control operation mode is set correctly for operating your target component.
  - Press VCR to operate the VCR.
  - Press TV to operate the TV.

1 On TV

1 Turn on the TV.
2 Select the video channel (or video input).

2 On VCR

Insert a cassette.
The VCR turns on.
- If the record tab on a cassette is removed, playback will start automatically.
- If a cassette is already in the VCR, turn on the VCR.

3 Start Playback

Press PLAY ►.
- This VCR automatically selects S-VHS mode if a tape is recorded in S-VHS format. In this case, the S-VHS indicator on the display lights up.
- When you want to play back the same tape repeatedly, press and hold PLAY ► for more than 5 seconds. (See "Repeat playback" on page 15.)
- When you want to play back a HiFi stereo tape, you can change the sound you listen to. See "Selecting Monitor Sound" (✈p.17)

To rapidly locate a particular scene

Press ►► or ◄◄ during playback. (No sound comes out.)
To resume playback, press PLAY ► again.
- If ►► or ◄◄ is held down for more than 2 seconds, simply releasing it will cancel the search.

To stop playback

Press STOP ■.

To rewind the tape

Press ◄◄ when the tape is not running (or turn the shuttle ring on the front panel counterclockwise).

To fast forward the tape

Press ►► when the tape is not running (or turn the shuttle ring on the front panel clockwise).

To eject the tape

Press EJECT ▲.

To turn off the VCR

Press POWER.

Recording

When using this VCR, an index mark is always marked at the beginning of every recording. This index marks make it easier for you to search for the beginning of the recordings (see "Index Search" (✈P.15).)

Make sure....
- The record tab on the cassette is not removed.
- Your VCR, TV, and antenna are connected correctly.
- The remote control operation mode is set correctly for operating your target component.
  - Press VCR to operate the VCR.
  - Press TV to operate the TV.
  - Press CBL/DBS to operate the Cable box or the DBS tuner.

1 On TV

1 Turn on the TV.
2 Select the video channel (or video input).

2 On VCR

Insert a cassette with the record tab in place.
The VCR turns on.
- If a cassette is already in the VCR, turn on the VCR.

To rewind the tape, press ◄◄ (or turn the shuttle ring on the front panel counterclockwise).

3 Select Tape Speed

Press SPEED until the desired tape speed (SP, SLP) appears on the display.

4 Select a Channel

Press CH ▲ / ▼ or Number buttons to select the channel to record.
- If you use a Cable box or DBS tuner, select the Cable box or DBS tuner output channel.

5 Start Recording

Press REC/OTR.
- An appropriate recording format (S-VHS or VHS mode) is automatically selected when "S-VHS MODE" is set to "AUTO" (factory setting: See "Selecting Recording Format" (✈P.17).
- When you want to record an MTS programme, you need to set the type of programme you want to record. (See "Recording an MTS Programme" (✈P.17).

To pause recording

Press STILL/SLOW I► briefly (or PAUSE/STILL II on the front panel).
To resume recording, press the same button again.

To stop recording

Press STOP ■.

To watch another TV programme while recording

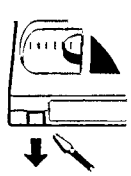
1 Press VCR/TV so that the VCR indicator goes off from the display.
2 Select a different channel you want to watch on the TV.

You can watch the programme of the selected channel on the TV, without affecting recording on the VCR.
- *If you use a Cable box or DBS tuner, you cannot watch another programme while recording.*

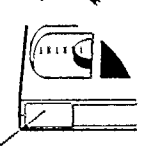
Erase protection

Cassettes have the record tab to ensure that recordings are not accidentally erased.

To prevent accidental erasure:
Break off the record tab with a screwdriver.



To record again:
Cover the opening with adhesive tape.



Adhesive tape

One Touch Recording (OTR)

The OTR function lets you quickly specify how long you want a recording to continue. You do not have to programme the timer.

Make sure....

- The record tab on the cassette is not removed. (✈P.14)
- Your VCR, TV, and antenna are connected correctly.
- The remote control operation mode is set correctly for operating your target component.
  - Press VCR to operate the VCR.
  - Press TV to operate the TV.
  - Press CBL/DBS to operate the Cable box or the DBS tuner.

On TV

1 Turn on the TV.
2 Select the video channel (or video input).

On VCR

Insert a cassette with the record tab in place.
The VCR turns on.

- If a cassette is already in the VCR, turn on the VCR.

To rewind the tape, press ◄◄ (or turn the shuttle ring on the front panel counterclockwise).

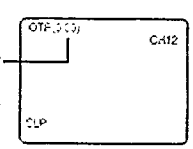
Select Channel

Press CH ▲ / ▼ or Number buttons to select the channel to record.

- If you use a Cable box or DBS tuner, select the Cable box or DBS tuner output channel.

Start OTR

Press REC/OTR twice.
Recording starts immediately, and the ○ (Record) indicator lights up on the display.



This indicates that the VCR will automatically shut off after 30 minutes of recording.

5 Select Recording Length

Press REC/OTR repeatedly until the desired recording length appears.
Each time you press the button, recording length increases in 30-minute intervals.

0:►0→1:00→1:30···8:30→9:00
REC (Normal recording)←

To check time remaining during an OTR

Press EXIT/STATUS.

To change the recording length during an OTR

Press REC/OTR until the desired length appears.

To cancel an OTR

Press STOP ■ to stop recording before the preset recording length is reached.
If you want to cancel the OTR mode but continue recording, press REC/OTR several times until "OTR" changes to "REC" on the TV screen.

Notes on the indications on the display while an OTR operation

- *During recording, the displayed time counts down. When "0:00" is reached, recording stops and the VCR turns off automatically.*
- *If an OTR is engaged during pause, the displayed time counts down normally, but recording does not begin until you cancel the pause.*

Child Lock

You can prevent the VCR operations.

To use Child Lock

When the VCR is turned on, press and hold POWER on the remote control for more than 7 seconds to turn off the VCR.
The "—" appears on the display.
While "—" is on the display, you cannot turn on the VCR by pressing POWER on the VCR.

To cancel Child Lock

Press and hold POWER on the remote control for more than 7 seconds to turn on the VCR.
The "—" disappears on the display.

Index Search

You can locate an index marked at the beginning of each recording on a tape recorded on this VCR (or an indexed tape).

Press INDEX ►►I or INDEX I◄◄ repeatedly until the appropriate number is displayed on the TV screen before starting play.
Rapid forward or reverse search begins. When it finds the designated index, playback starts automatically.

- Locate an index number by pressing the button repeatedly, indicating how many index marks ahead of or behind that recording you want is from the tape's current position.
- Up to ±9th index mark from the current position on the tape can be located.

Automatic Operations

Auto playback

When a tape is inserted, the VCR turns on. If the record tab is removed, playback begins.

Repeat playback

When you press and hold PLAY ► for more than 5 seconds, you can play back the same tape repeatedly (50 times).
When the tape runs to its end, the VCR automatically rewinds the tape, and starts playback.

Auto rewind

When a tape reaches its end during playback, fast forwarding, or manual recording, the VCR rewinds the tape and stops.

Memory rewind power off

When you press POWER during rewinding, the VCR turns off after rewinding is completed.

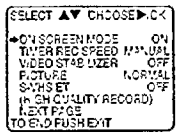
Eject cassette

You can eject the tape simply by pressing EJECT ▲ even while the VCR is turned off.
When you press EJECT ▲, the VCR automatically turns on, ejects the tape, then turns off.

Using On-Screen Display

You can display the VCR operating status on the TV screen.
For the information about what you can see on the TV screen, see page 7.

1 Select VCR Set Up Mode



1 Press VCR.
2 Press MENU.
3 Press ▲ or ▼ to select "VCR SET UP" then press ►/OK.
The VCR Set Up menu appears.

- The VCR Set Up menu consists of two pages.

2 Select On-Screen Mode

1 Press ▲ or ▼ to select "ON SCREEN MODE" (on the first page of the Set Up menu).
2 Press ►/OK.
Each time you press the button, the setting changes.

ON:
When you press a tape running button (Stop, Play, etc.), the VCR status appears for 5 seconds.
COUNTER:
When you press a tape running button, the VCR operating status appears for 5 seconds.
After 5 seconds, the VCR status disappears except the time counter.
OFF:
The VCR operating status does not appear even if you press a tape running button.

3 Finish Setting

Press EXIT/STATUS.

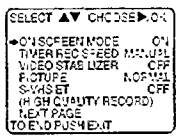
To display the VCR status on the TV screen manually, press EXIT/STATUS. The VCR status appears for about 5 seconds.

- If "ON SCREEN MODE" is set to "OFF," no VCR status appears though you press EXIT/STATUS.

Stabilizing Playback Quality

With this function, you can correct vertical vibration while playing back a tape.

1 Select VCR Set Up Mode



1 Press VCR.
2 Press MENU.
3 Press ▲ or ▼ to select "VCR SET UP" then press ►/OK.
The VCR Set Up menu appears.

- The VCR Set Up menu consists of two pages.

2 Set Video Stabilizer

1 Press ▲ or ▼ to select "VIDEO STABILIZER" (on the first page of the Set Up menu).
2 Press ►/OK.
Each time you press the button, the setting changes.

ON:
Select this to activate Video Stabilizer.
OFF:
Select this to cancel Video Stabilizer.

3 Finish Setting

Press EXIT/STATUS.

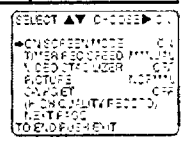
Notes:

- *After watching a tape using this function, make sure to cancel this function.*
- *The on-screen status display may jitter vertically when "VIDEO STABILIZER" is set to "ON".*

Picture Control

To get a better picture when viewing tapes with noise such as rental tapes.

1 Select VCR Set Up Mode



1 Press VCR.
2 Press MENU.
3 Press ▲ or ▼ to select "VCR SET UP" then press ►/OK.
The VCR Set Up menu appears.

- The VCR Set Up menu consists of two pages.

2 Select Picture Control Mode

1 Press ▲ or ▼ to select "PICTURE" (on the first page of the Set Up menu).
2 Press ►/OK.
Each time you press the button, the setting changes.

NORMAL:
Select this when you play back a tape with no picture adjustments.
ENHANCER:
Select this when you want to make a playback picture softer.
INCREDIBLE:
Select this when you want to make a playback picture sharper.

3 Finish Setting

Press EXIT/STATUS.

When using Incredible Picture

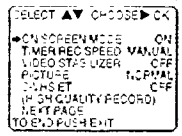
You can turn on and off Incredible Picture simply by pressing INCREDIBLE PICTURE on the front panel.

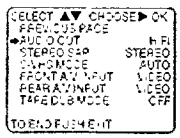
Selecting Recording Format

When shipped from the factory, this VCR has been set to select automatically S-VHS format for recording on an S-VHS tape, and VHS format for recording on a VHS tape. If you want to make a recording using VHS format on an S-VHS tape, follow the procedure below.

Select VCR Set Up Mode

1 Press VCR
2 Press MENU.
3 Press ▲ or ▼ to select "VCR SET UP" then press ►/OK.
The VCR Set Up menu appears.
- The VCR Set Up menu consists of two pages.





Select Recording Format

1 Press ▲ or ▼ to select "S-VHS MODE."
2 Press ►/OK.
Each time you press the button, the setting changes.

ON:
Normally select this.

OFF:
Select this when you want to make a recording using the VHS format on an S-VHS tape.

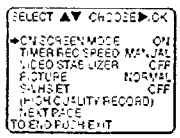
Finish Setting

Press EXIT/STATUS.

S-VHS ET

This VCR allows recording in Super VHS ET (Expansion Technology) mode. You can record with S-VHS picture quality on VHS cassettes.

1 Press Menu.
2 Press ▲ or ▼ to select "VCR SET UP" then press ►/OK.
The VCR Set Up menu appears.
3 Press ▲ or ▼ to select "S-VHS ET".
4 Press ►/OK to set to ON.



Notes:
This function does not work during recording, timer recording.
Or when the VCR's power is off.
Also, it does not work with S-VHS tapes.

This facility allows recording with S-VHS picture quality on VHS cassettes. You can play back those cassettes recorded in S-VHS ET on a VCR equipped with S-VHS ET.

Notes:
- *To obtain the highest quality recording and playback pictures over a longer period on this model, S-VHS recording on S-VHS tape is recommended.*
- *You can play back S-VHS ET recordings not only on this VCR but also on another VHS VCR equipped with S-VHS ET. It is recommended to specifically label S-VHS ET recordings so you can easily distinguish them from regular VHS recordings.*
- *S-VHS ET recordings can also be played back on an S-VHS VCR or a VHS VCR equipped with SQPB (S-VHS QUASI PLAYBACK) function. However, there may be cases where S-VHS ET playback is not possible on a particular VCR.*
- *Frequent still, frame-by-frame and slow-motion playback may damage the tape and cause picture degradation.*
- *With some tapes, better picture quality may not be obtained even with S-VHS ET recording. It is recommended that you do test record beforehand to make sure whether better results can be obtained.*
- *High Grade tapes are recommended for superior results.*
- *If the playback picture becomes blurred or interrupted, use a cleaning cassette.*

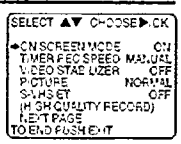
Recording an MTS Programme

This VCR can record an MTS (Multi-channel Television Sound) programme. You need to specify the sound mode – either stereo or SAP– whichever you want to record the programme in.

However, if an MTS programme is broadcasted in stereo (without SAP sound), this VCR automatically records it in HiFi stereo mode. So, you do not need to specify the type of programme.

1 Select VCR Set Up Mode

1 Press VCR.
2 Press MENU.
3 Press ▲ or ▼ to select "VCR SET UP" then press ►/OK.
The VCR Set Up menu appears.
- The VCR Set Up menu consists of two pages.



2 Select Programme Type

1 Press ▲ or ▼ to select "STEREO/SAP."
2 Press ►/OK.
Each time you press the button, the setting changes.

STEREO:
Select this when you want to record an MTS broadcast in HiFi recording (in main language).

SAP (Second Audio Programme):
Select this when you want to record a Second Audio Programme.

3 Finish Setting

Press EXIT/STATUS.

4 Start Recording

Press REC/OTR.
- For more detailed recording procedures, see "Recording" (✈P.14).

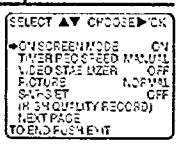
Selecting Monitor Sound

While playing back a HiFi stereo tape, you can change sound you listen.

Make sure....
- The connections described in "VCR to AV TV Connection" (✈P.10) are required for HiFi stereo reproduction.

1 Select VCR Set Up Mode

1 Press VCR.
2 Press MENU.
3 Press ▲ or ▼ to select "VCR SET UP" then press ►/OK.
The VCR Set Up menu appears.
- The VCR Set Up menu consists of two pages.



2 Select Monitor Sound

1 Press ▲ or ▼ to select "AUDIO OUT."
2 Press ►/OK.
Each time you press the button, the setting changes.

HIFI:
Normally select this.
You can play back a HiFi tape in HiFi stereo mode, and monaural tape in monaural mode.

MONO:
Select this when you want to play back the sound recorded on the normal audio track of the tape.

3 Finish Setting

Press EXIT/STATUS.

Note:
You can also select monitor sound by pressing AUDIO on the remote control.

Special Effect Playbacks

Are you familiar with tape playback? If so, you are ready to enjoy the special effect playback features described below.

To skip playback for a certain period

Press SKIP during playback to search forward for 30 seconds by the time counter reading.
Each time you press the button, the search time increases as follows:

30→60→90→120 sec.

The VCR automatically resumes normal playback after searching for the specified period.

To rapidly locate then freeze a particular scene

Possible during the playback and still picture mode.

1 Press JOG/SHTL so that the JOG/SHTL lamp lights up.
2 Turn the shuttle ring clockwise (or counterclockwise) to fast forward (reverse) a picture, while the JOG/SHTL lamp is lit.
As you turn the ring further, the search speed increases.
3 Release the ring where you want to freeze a picture.

Note:
When using the shuttle ring on the front panel, you do not have to press JOG/SHTL on the remote control.

To view a slow motion picture

Press STILL/SLOW I► (or PAUSE/STILL II on the front panel) for more than 2 seconds during playback.

To decrease the slow motion speed (and reverse the slow motion playback), press STILL/SLOW I► –.

To increase the slow motion speed (and forward the slow motion playback), and press STILL/SLOW I► +.

To resume playback, press PLAY ►.

To view a still picture

Press STILL/SLOW I► briefly (or PAUSE/STILL II on the front panel) during playback.
Playback is freezed and a still picture appears.

To advance a still picture:

1 Press JOG/SHTL so that the JOG/SHTL lamp lights up.
2 Rotate the jog dial clockwise (or counterclockwise) to advance (reverse) a still picture frame by frame, while the JOG/SHTL lamp is lit.

Note:
When using the jog dial on the front panel, you do not have to press JOG/SHTL on the remote control.

To resume playback, press PLAY ►.

Notes:
- *No sound comes out during special effect playbacks.*
- *If you keep viewing slow motion and still pictures for 5 minutes, the VCR automatically stops to protect the tape and video heads.*
- *During special effect playbacks, some noise bars will appear on the TV screen.*

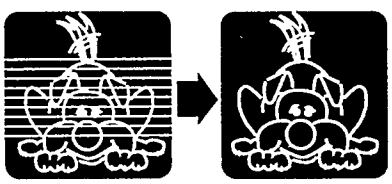
Tracking Adjustments

Auto tracking

Each time a tape is inserted, auto tracking starts working and continuously analyses the signal to adjust for optimum picture quality during playback. So, there is no need for you to minimize noises in most tapes during playback.

Manual tracking

- **During normal playback:**
  If auto tracking cannot eliminate noises well during playback, press CHANNEL ▲ or ▼ on the front panel.
- **During a slow motion picture:**
  Press CHANNEL ▲ or ▼ on the front panel to minimize noises in the slow motion picture.
- **During a still picture:**
  Press CHANNEL ▲ or ▼ on the front panel to reduce jitter in the still picture.



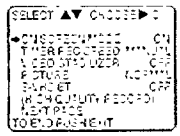
To cancel manual tracking, stop the tape, eject the tape, then re-insert it.

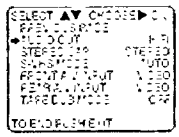
Selecting Video Input Terminal

This VCR has two types of the video input terminal both on the front panel and rear panel. You have to correctly set the video terminal (S-VIDEO or VIDEO) to use.
Using the S-VIDEO terminal gives you a better picture.

1 Select VCR Set Up Mode

1 Press VCR.
2 Press MENU.
3 Press ▲ or ▼ to select "VCR SET UP" then press ►/OK.
The VCR Set Up menu appears.
- The VCR Set Up menu consists of two pages.





2 Select Video Input Terminal

1 **To set the front video input terminal:**
Press ▲ or ▼ to select "FRONT A/V INPUT".
To set the rear video input terminal:
Press ▲ or ▼ to select "REAR A/V INPUT".
2 Press ►/OK.
Each time you press the button, the setting changes.

S-VIDEO:
Select this when using the S-VIDEO terminal (DIN type).
VIDEO:
Select this when using the VIDEO terminal (yellow jack)

3 Finish Setting

Press EXIT/STATUS

Timer Recording

To record while you're away, follow step 1 — 10 below. For each programme you set, the VCR will turn on, start recording, and turn off automatically. You can store up to 8 programmes.

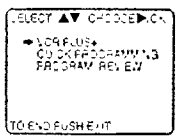
Make sure....

- The clock is set to the correct time before setting timer recording.
- A cassette is inserted in the VCR and the record tab of the cassette must not be removed.

FOR EACH STEP BELOW, YOU NEED TO FINISH WITHIN 60 SECONDS; OTHERWISE, PROGRAMMING WILL HAVE TO BE RESTARTED FROM STEP 1.

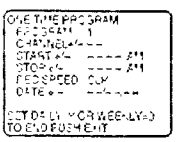
Select Timer Mode

1 Press VCR.
2 Press TIMER.
The Timer Recording menu appears.



Select Programme mode

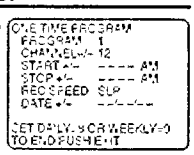
1 Press ▲ or ▼ to select "QUICK PROGRAMMING" then press ►/OK.
The Quick Programming menu appears.



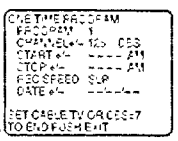
- If you have already made 8 programmes, "ALL PROGRAMS IN USE" appears and goes back to the Timer Recording menu. If this happens, delete unwanted programmes. (→P.20)

Select Channel

Press CH ▲ or ▼ to enter the TV channel.



- To record from external line input, press CH ▲ or ▼ until "A/V IN REAR" for rear jacks or "A/V IN FRONT" for front jacks appears on the TV screen.
- For DBS tuner users
If "DBS RECEIVER CONTROLLER" is set to "ON" (→P.27), the band indication (CABLE/TV or DBS) appears right of the channel number. If the channel number that has been entered requires that the band be set, "SET CABLE/TV OR DBS=7" is displayed on the screen.



To record the desired program correctly, be sure to set proper band by pressing Number button 7.

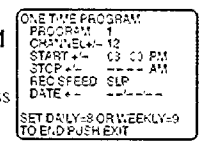
A-CABLE/TV:
To timer-record a regular TV program received on the VCR.
OR
To timer-record a cable TV program received on the VCR or through a cable box (unless "CABLE BOX CONTROLLER" is set to "OFF" (→P.26).

B-DBS:
To timer-record a satellite program received through a DBS tuner.

- Holding down CH ▲ or ▼ rapidly scans through the channels.

Select Start Time

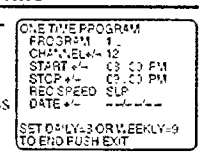
Press START + or – (Number button 1 or 4).



- Each time you press the button, the set time changes by 1-minute intervals. If you hold the button, the set time changes by 30-minute intervals.

Select Stop Time

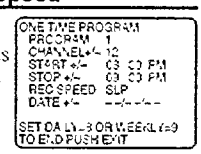
Press STOP + or – (Number button 2 or 5).



- Each time you press the button, the set time changes by 1-minute intervals. If you hold the button, the set time changes by 30-minute intervals.

Select Tape Speed

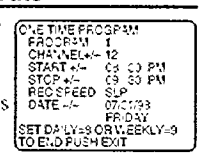
Press SPEED.



- Each time you press the button, the tape speed alternates between "SP" and "SLP."

Select Start Date

Press DATE + or – (Number button 3 or 6).



- Each time you press the button, the set date changes by 1-day intervals. If you hold the button, the set time changes by 15-day intervals. You can only specify the date within one year.
- The year and day of the week is displayed automatically.

Select Recording Type

If you want to record the same programme daily, press DAILY (Number button 8).
The VCR will record a TV programme every day (Monday through Friday) at the same time and length. (Daily Recording)

If you want to record the same programme weekly, press WEEKLY (Number button 9).
The VCR will record a TV programme once a week at the same day, time, and length. (Weekly Recording)

If you want to cancel the currently set programme, press CLEAR.

Confirm Programme

Press EXIT/STATUS.
"PROGRAM WAS COMPLETED" appears on the TV screen.
After 5 seconds, the above message disappears, and the normal TV picture resumes. The ⏲ (Timer) indicator lights up on the display.

- If "PROGRAM NOT COMPLETED" appears, try again from step 1.
- If "PROGRAM NOT COMPLETED CLASH" appears, the timer recording you just programmed overlaps another timer recording. The time recording you just programmed will not take place. The time recording menu will reappear. To cancel a timer recording. (→P.20)

If you want to store other programmes, repeat steps 1 to 9.

Finish Settings

Press POWER to turn off the VCR.
The VCR must be turned off for a timer recording to take place. If you forget to turn off the VCR, PLEASE TURN OFF VCR FOR TIMER RECORDING flashes on your TV screen two minutes before a timer recording starts. To remove the message, press the CLEAR button.

- When you use the Cable box or DBS tuner for timer recording, leave it turned on until recording is done.

After a timer recording has taken place

Press POWER to turn on the VCR.
You can operate your VCR normally.

To stop a started timer recording

Press POWER.
Recording stops and the VCR turns off. If it is a Daily or Weekly Recording, future recordings will be carried out as programmed.

Useful function for Timer Recording: Auto Tape Speed

With this function activated, the VCR can change the tape speed and record the programme in SLP mode if not enough tape remains for recording in SP mode.

1 Press VCR.
2 Press MENU.
3 Press ▲ or ▼ to select "VCR SET UP" then ►.
4 Press ▲ or ▼ to select "TIMER REC SPEED."
5 Press ►/OK.
Each time you press the button, the setting changes.

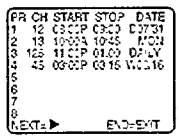
AUTO:
Select this to allow the VCR to change the tape speed from SP to SLP when there is not enough tape length remaining.

MANUAL:
Select this not to allow the VCR to change the tape speed.

6 Press EXIT/STATUS to exit from the menu operations.

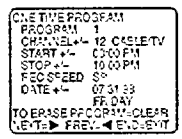
To check, edit or erase the programmes

1 Turn on the VCR and TV.
2 Press VCR.
3 Press TIMER.
4 Press ▲ or ▼ to select "PROGRAM REVIEW" then press ►/OK.



The list of the timer recording programmes appears.

5 Press ►/OK repeatedly to view the more detailed programme information.



- When you press the button for the first time, the detailed programme information for Programme 1 appears. By pressing this button repeatedly, you can review the detailed information of all other programmes.

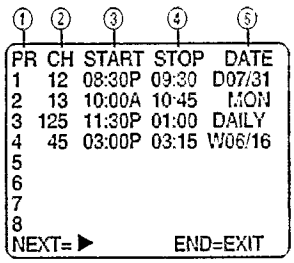
6 **If you want to change the programme setting shown on the TV screen,** press the following buttons:
SPEED :Changes the tape speed.
START +/–:Changes the start time.
STOP +/– :Changes the stop time.
CH ▲/▼ :Changes the channel.
DATE +/– :Changes the date.

If you want to erase the programme setting shown on the TV screen, press CLEAR. The detailed information of the next programme appears.

7 Press EXIT/STATUS to exit from the menu operations.

Notes:
- *This function does not work for OTR (One Touch Recording).*
- *With Day Saving Time activated (see page 12), the timer will not work correctly when the internal clock adjusts itself to the summer time or winter time.*

How to see the programme list



① Programme numbers
② Preset channel numbers
③ Start time
"A" stands for "AM," and "P" stands for "PM."
④ Stop time
⑤ Start date
"D" stands for "DAILY," and "W" stands for "WEEKLY."
- If the programme has worked once for the Daily recording, "DAILY" will be shown instead of the start date.
- If the programme has worked once for the Weekly recording, the day of the week (in this example, "MON") will be shown instead of the start date.

VCR PLUS+ Set Up

You can simplify the programming method of timer recording by using PlusCode number. Whenever you want to record a TV program, all you need to do is to find out the programme's PlusCode number.
You can easily find out this number by checking the TV programme list of your local newspaper or TV guide magazine.
Simply entering the programme's PlusCode number using the remote control will make the VCR record the programme.

Before using PlusCode number for the first time, you need to set the VCR PLUS+ channel number for each local channel number. The **local channel number** is the number you select on the TV, VCR or Cable box to watch a programme, while the **VCR PLUS+ channel number** is the one assigned to that local channel and you can also find it in the TV programme list of your local newspaper or TV guide magazine.

Note:

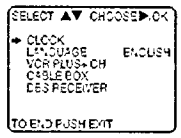
- ***If the VCR PLUS+ channel number for a local station is the same as its local channel number, you do not have to do the VCR PLUS+ set up for that particular station.***

Make sure....

- You can use the tables below to note your local (TV or Cable) channel numbers and their VCR PLUS+ channel numbers.

Select Initial Set Up Mode

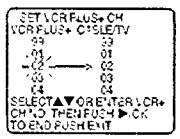
1 Press MENU.
2 Press ▲ or ▼ to select "INITIAL SET UP" then press ►/OK.
The Initial Set Up menu appears.



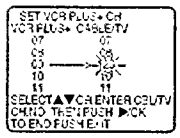
Set VCR PLUS+ Channel

1 Press ▲ or ▼ to select "VCR PLUS+ CH" then press ►/OK.
The VCR PLUS+ Set Up menu appears.
2 Press Number buttons to enter VCR PLUS+ channel number for the local station you want to set.

- For example, for VCR+ channel number 9, press 0, 9.
  Always enter "0" before any single number entries.
- You can also select the VCR PLUS+ channel number by pressing ▲/▼ (or CH +/–) repeatedly until the number you want starts flashing.



3 Press ►/OK.
The VCR PLUS+ channel number is set, and the local channel number currently set for the VCR PLUS+ channel number starts flashing.



4 Press Number buttons to enter the correct local (CABLE/TV) channel number whose VCR PLUS+ channel number is the one you have set in the previous step.

- For example, for local number 125, press 1, 2, 5.
  Always enter "0" for empty digits.
- You can also select the local (CABLE/TV) channel number by pressing ▲/▼ (or CH +/–) repeatedly until the number you want starts flashing.
  When you want to use the external line input as the local channel, select either "A/V REAR" or "A/V FRONT."

5 Repeat the above procedures until you set the VCR PLUS+ channel number for other local channels.

Finish Setting

Press EXIT/STATUS.

Local TV (or Cable) Stations	Local (CABLE/TV) Channel No.	VCR PLUS+ Channel No.

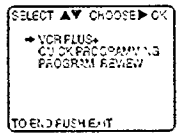
Local TV (or Cable) Stations	Local (CABLE/TV) Channel No.	VCR PLUS+ Channel No.

Timer Recording Using PlusCode

By entering the PlusCode number for a particular TV programme, you can easily programme a timer recording.

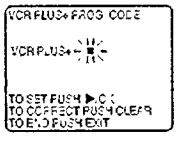
1 Select Timer Mode

1 Press VCR.
2 Press TIMER.
The Timer Recording menu appears.



2 Select PlusCode Entry Mode

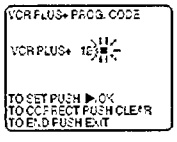
Press ▲ or ▼ to select "VCR PLUS+" then press ►/OK.
The PlusCode entry menu appears on the TV screen.



- If you have already made 8 programmes, "ALL PROGRAMS IN USE" appears and goes back to the Timer Recording menu. If this happens, delete unwanted programmes. (→P.20)

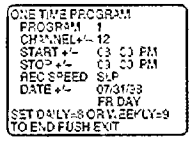
3 Enter PlusCode

1 Press Number buttons to enter the PlusCode number assigned to the TV programme you want to record.
2 Press ►/OK.



- If "ERROR" appears on the TV, you have entered an incorrect PlusCode number. If this happens, press CLEAR to erase the number, then enter the correct number.
- If you have not yet set the VCR PLUS+ channels, the VCR PLUS+ Set Up menu appears.
Input the number of the channel on which the broadcast for the Pluscode number is received on the VCR or cable box, then press ►/OK and the program screen appears.

4 Select Recording Type



If you want to record the same programme daily, press DAILY (Number button 8).
The VCR will record a TV programme every day (Monday through Friday) at the same time and length. (Daily Recording)

If you want to record the same programme weekly, press WEEKLY (Number button 9).
The VCR will record a TV programme once a week at the same day, time, and length. (Weekly Recording)

If you want to cancel the currently set programme, press CLEAR.

5 Select Tape Speed

Press SPEED.

- Each time you press the button, the tape speed alternates between "SP" and "SLP."

To change the stop time, press STOP +/– (number 2 or 5 button).

6 Confirm Programme

Press EXIT/STATUS.
"PROGRAM WAS COMPLETED" appears on the TV screen.
After 5 seconds, the above message disappears, and the normal TV picture resumes. The ⏲ (Timer) indicator lights up on the display.

- If "PROGRAM NOT COMPLETED" appears, try again from step 1.
- If "PROGRAM NOT COMPLETED CLASH" appears, the timer recording you just programmed overlaps another timer recording. The time recording you just programmed will not take place. The time recording menu will reappear. To cancel a timer recording. (→P.20)

If you want to store other programmes, repeat steps 1 to 9.

7 Finish Settings

Press POWER to turn off the VCR.
The VCR must be turned off for a timer recording to take place. If you forget to turn off the VCR, PLEASE TURN OFF VCR FOR TIMER RECORDING flashes on your TV screen two minutes before a timer recording starts. To remove the message, press the CLEAR button.

- When you use the Cable box or DBS tuner for timer recording, leave it turned on until recording is done.

After a timer recording has taken place

Press POWER to turn on the VCR.
You can operate your VCR normally.

To stop a started timer recording

Press POWER.
Recording stops and the VCR turns off. If it is a Daily or Weekly Recording, future recordings will be carried out as programmed.

To use Auto Tape Speed

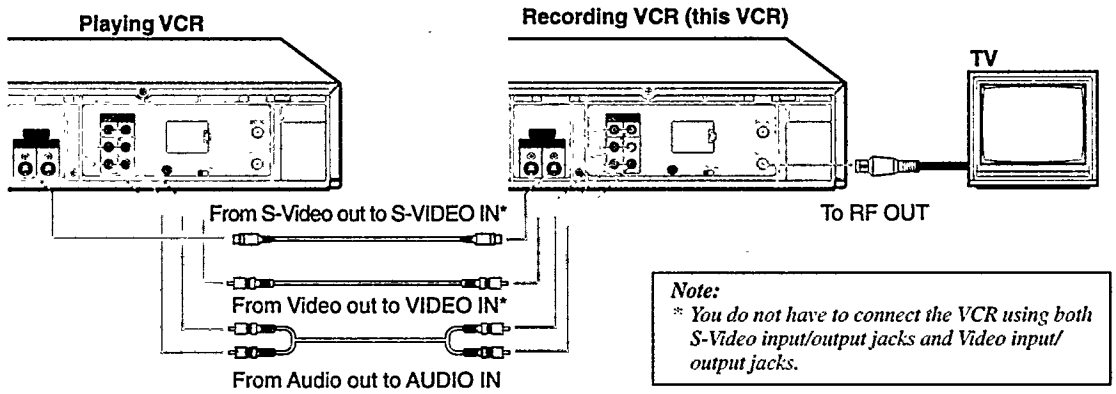
See page 20.

To check or erase the programmes

See page 20.

Connection Diagram

1 Connect the recording VCR (this VCR) and the playing VCR.
2 Connect the recording VCR (this VCR) to the TV.


Playing VCR
Recording VCR (this VCR)
TV
From S-Video out to S-VIDEO IN*
To RF OUT
From Video out to VIDEO IN*
From Audio out to AUDIO IN

Note:
* *You do not have to connect the VCR using both S-Video input/output jacks and Video input/output jacks.*

Dubbing from any VCR (or video camera) to another is simple. Explanations on this page uses this VCR as the recording VCR. Refer also the manual supplied with the other VCR (for playback).

Make sure....
- You can use either type of video input jack (S-VIDEO or VIDEO) on the front panel and rear panel to connect another VCR. However, you have to correctly set the video terminal to use. (→P.18)
- The remote control operation mode is set correctly for operating your target component.
  – Press VCR to operate the VCR.

1 On VCRs

Insert a source tape in the playing VCR and a blank tape in the recording VCR.
- If a tape without the record tab is inserted in the playing VCR, playback automatically starts. In this case, press the STOP button.
- If the VCR indicator on the recording VCR (this VCR) does not light up, press VCR/TV once.

2 On TV

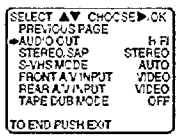
Turn the channel on the TV to your video channel.

3 Select Line Input

Press CH ▲ or ▼, pointing the remote control at this VCR, to select the external line input.
- For rear jacks, select "L-1" on the display or "A/V IN REAR" on the TV screen.
- For front jacks, select "L-F" on the display or "A/V IN FRONT" on the TV screen.

4 Select Tape Dub Mode

Press Menu
Press ▲ or ▼, to select "VCR SET UP" then press ►/OK.
The VCR Set Up menu appears.
The VCR Set Up menu consists of two pages.



On the 2nd page, press ▲ or ▼ to select "TAPE DUB MODE".
Press ►/OK to set to ON.

Notes:
- *Set the TAPE DUB MODE back to OFF when you finish dubbing.*
- *Tape Dub Mode minimizes picture degradation while dubbing.*

5 Select Tape Speed

Press SPEED, pointing the remote control at this VCR, until the desired tape speed (SP, SLP) appears on the display.

6 Play Back Tape

Press the PLAY button on the playing VCR.

7 Record (Copy) Tape

Press REC/OTR, pointing the remote control at this VCR.

Remember: press the buttons in steps 5 and 7 simultaneously to avoid missing any of the recording.

OPERATING OTHER COMPONENTS

You can use this remote control to operate your TV, Cable box, and DBS tuner.
To use this remote control for operating these equipment, you first need to set the manufacturer's code properly.

Make sure....

- The buttons you can use to operate your TV, Cable box and DBS tuner are explained on page 7. Refer also to the manual supplied with your equipment.

For Operating TV

You can use this remote control to operate your TV, not only PHILIPS TV but also other manufacturers' TVs listed below.
If your TV is one of the PHILIPS models, you can use the remote control to operate the TV without any setting.
To operate another manufacturer's TV, you first need to set the manufacturer's code.

Note:
Though this remote control can operate most of the PHILIPS TVs as well as many other manufacturers', some of the TVs will not operate or some functions available on the TVs will not work with this remote control.

1 Set Code

1 Press and hold TV.
2 Press two Number buttons for the manufacturer's code number of your TV, referring to the table to the right.
- For example, for 02, press 0 then 2.

3 Press STOP ■, then release TV.
- The remote control can now operate the TV of the selected code.

2 Confirm Setting

Press POWER, pointing the remote control at the TV.
If the TV turns on or off, your setting is completed.
If not, repeat steps above, using another code.

After replacing the batteries
You need to reset the manufacturer's code again.

For Operating Cable Box/DBS

You can also use this remote control to operate your Cable box and DBS tuner.

Note:
Some functions available on the Cable box and DBS tuner will not work with this remote control.

1 Set Code

1 Press and hold CBL/DBS.
2 Press two Number buttons for the manufacturer's code number of your Cable box or DBS tuner, referring to the table below.
- For example, for 02, press 0 then 2.

3 Press STOP ■, then release CBL/DBS.
- The remote control can now operate the Cable box or DBS tuner of the selected code.

2 Confirm Setting

Press POWER, pointing the remote control at the able box or DBS tuner.
If the able box or DBS tuner turns on or off, your setting is completed.
If not, repeat steps above, using another code.

After replacing the batteries
You need to reset the manufacturer's code again.

TV Manufacturers' Codes	
PHILIPS	01, 02, 03
EMERSON	14
GOLDSTAR	04
GRUNDIG	24, 25
HITACHI	12
JVC	05
MITSUBISHI	13, 26
PANASONIC	07, 17, 19, 20
RCA	10
SAMSUNG	18
SANYO	11
SHARP	16
SONY	09
THOMSON	21, 22, 23
TOSHIBA	08
ZENITH	06, 15

Cable Box Manufacturers' Codes	
ARCHER	01, 05, 17
CABLETENNA	01, 17
CABLEVIEW	15, 16, 17, 21, 25
CITIZEN	15, 16, 17, 21, 25
CURTIS	02, 08
DIAMOND	01, 17
EASTERN	19
GC BRAND	15, 16, 17, 21, 25
GEMINI	15
GENERAL INSTRUMENTS	01, 04, 06, 11, 12, 15
HAMLIN	10, 18, 19, 23
JASCO	15
JERAOLD	01, 04, 06, 11, 12, 15
NOVAVISION	02,08
OAK	07, 20
PANASONIC	13, 14
PULSFR	15, 16, 17, 21, 25
RCA	13, 14
REGAL	10, 18, 19, 23
REGENCY	19
REMBRANDT	01, 16, 17
SAMSUNG	05, 16, 24
SCIENTIFIC ATLANTA	02, 08
SIGMA	07, 20
SL MARX	05, 16, 17, 24, 25
SPRUCER	13, 14
STARGATE	05,15,16,17,21,24,25
TELEVIEW	05, 16, 24
TOCOM	01, 04, 16
UNIKA	01, 17
UNIVERSAL	16, 17, 25
VIDEOWAY	03, 09, 22
ZENITH	03, 09, 22

DBS Tuner Manufacturers' Codes	
MAGNAVOX	42, 43
RCA	40, 44

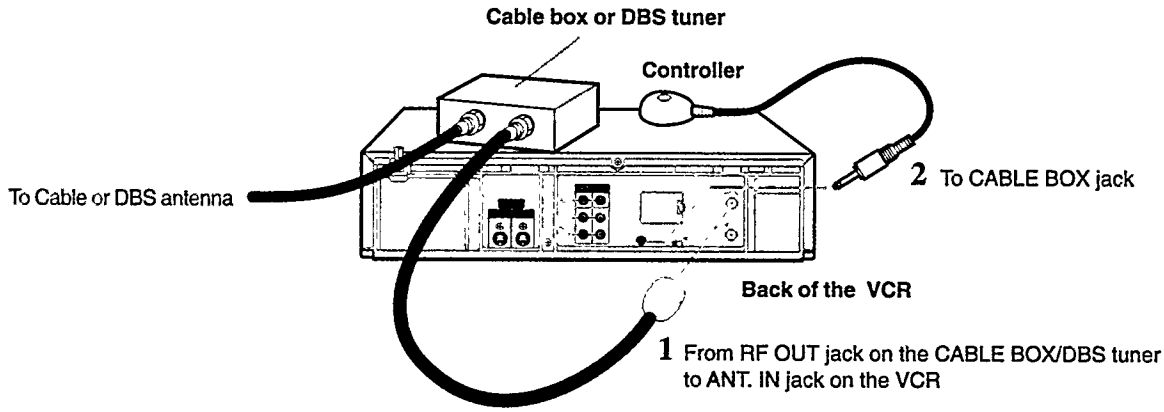
USING CONTROLLER

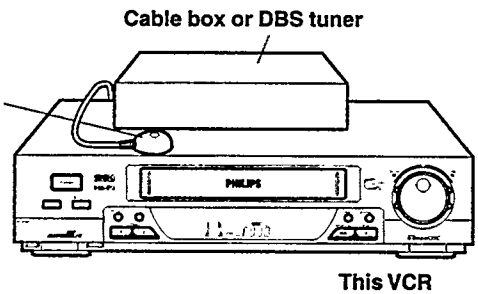
If you are using a Cable box or DBS tuner, connect the supplied controller to your VCR. The controller will make the Cable box or DBS tuner to automatically tune to the specified channel during a timer recording.

Connecting Controller

Connection Diagram

1 Connect this VCR and the Cable box or DBS tuner.
2 Connect the controller to this VCR.
3 Place the controller as illustrated below.


Cable box or DBS tuner
Controller
To Cable or DBS antenna
2 To CABLE BOX jack
Back of the VCR
1 From RF OUT jack on the CABLE BOX/DBS tuner to ANT. IN jack on the VCR



Attach the controller to the top of the VCR using adhesive tape. Make sure the controller's transmitter (the light on the top of the controller) is pointed toward the remote sensor of the Cable box or DBS tuner.

Now you need to set the controller's operation mode correctly.

If you are using a Cable box, go to "Controller Set Up for Cable Box" on page 26.

If you are using a DBS tuner, go to "Controller Set Up for DBS Tuner" on page 27.

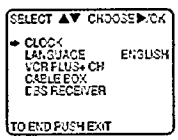
Controller Set Up for Cable Box

After making a correct setting on the menu, the controller will be able to make the Cable box to automatically tune to the specified channel during a timer recording.

FOR EACH STEP BELOW, YOU NEED TO FINISH WITHIN 60 SECONDS; OTHERWISE, SETTING WILL HAVE TO BE RESTARTED FROM STEP 1.

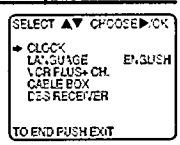
1 On Cable Box

1 Turn on the Cable box.
2 Select any channel other than channel 09.



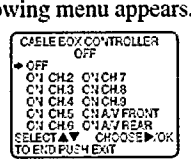
2 Select Initial Set Up Mode

1 Press VCR.
2 Press MENU.
3 Press ▲ or ▼ to select "INITIAL SET UP" then press ►/OK.
The Initial Set Up mode appears.



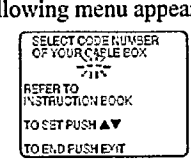
3 Select Cable Box Mode

Press ▲ or ▼ to select "CABLE BOX" then press ►/OK.
The following menu appears.



4 Select Output Channel

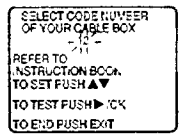
1 Press ▲ or ▼ to select the output channel.
2 Press ►/OK.
The following menu appears.



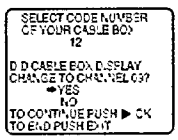
- In some cases, "CABLE BOX USERS SET CLOCK MANUALLY" appears on the TV, then the Clock Set Up menu appears. If this happens, you must set the clock manually. (✈P.12)

5 Set Code

1 Press ▲ or ▼ to select the manufacturer's code number of your Cable box, referring to the table to the right.



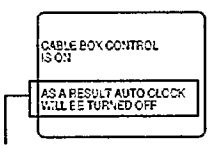
2 Press ►/OK.
3 Wait for about a few seconds.
The following menu appears.



- If channel 09 is automatically selected on your cable box, go to step 6.
- If channel 09 is not automatically selected on your Cable box, press ▲ or ▼ to select "NO" then press ►/OK. Repeat step 5 using another code for your Cable box.

6 Confirm Setting

1 Press ▲ or ▼ to select "YES."
2 Press ►/OK.
The following display appears.



This message appears if you select any channel from 02 to 09 as the output channel in step 4, Auto Clock will be turned off. (✈P.12)

Note:
If the channel does not change to channel 09 on your Cable box with any code entered in step 5. The controller will not change the channel on the Cable box during a timer recording.
In this case, you must select a channel to record on the Cable box before a timer recording begins. Leave the Cable box turned on.
Make sure to select the output channel of the Cable box (02 to 09: channel you have set on the Cable box) when programming a timer recording.

Manufacturers' Codes	
ARCHER	01, 05, 17
CABLETENNA	01, 17
CABLEVIEW	15, 16, 17, 21, 25
CITIZEN	15, 16, 17, 21, 25
CURTIS	02
DIAMOND	01, 17
EASTERN	19
GC BRAND	15, 16, 17, 21, 25
GEMINI	15
GENERAL INSTRUMENTS	01, 04, 06, 11, 12, 15
HAMLIN	10, 18, 19, 23
JASCO	15
JERAOLD	01, 04, 06, 11, 12, 15
NOVAVISION	02
OAK	07, 20
PANASONIC	13, 14
PULSFR	15, 16, 17, 21, 25
RCA	13, 14
REGAL	10, 18, 19, 23
REGENCY	19
REMBRANDY	01, 16, 17
SAMSUNG	05, 16, 24
SCIENTIFIC ATLANTA	02
SIGMA	07, 20
SL MARX	05, 16, 17, 24, 25
SPRUCER	13, 14
STARGATE	05,15,16,17,21,24,25
TALEVIEW	05, 16, 24
TOCOM	01, 04, 16
UNICA	01, 17
UNIVERSAL	16, 17, 25
VIDEOWAY	03, 09, 22
ZENITH	03, 09, 22

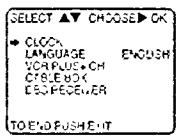
Controller Set Up for DBS Tuner

After making a correct setting on the menu, the controller will be able to make the DBS tuner to automatically tune to the specified channel during a timer recording.

FOR EACH STEP BELOW, YOU NEED TO FINISH WITHIN 60 SECONDS; OTHERWISE, SETTING WILL HAVE TO BE RESTARTED FROM STEP 1.

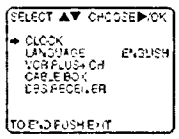
On DBS Tuner

1 Turn on the DBS Tuner.
2 Select any channel other than channel 205.



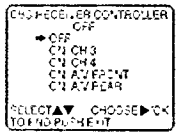
Select Initial Set Up Mode

1 Press VCR.
2 Press MENU.
3 Press ▲ or ▼ to select "INITIAL SET UP" then press ▶/OK.
The Initial Set Up mode appears.



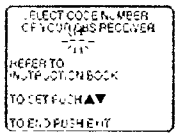
Select DBS Tuner Mode

Press ▲ or ▼ to select "DBS RECEIVER" then press ▶/OK.
The following menu appears.



Select Output Channel

1 Press ▲ or ▼ to select the output channel.
2 Press ▶/OK.
The following menu appears.



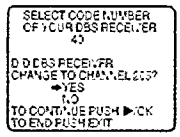
- In some cases, "DBS RECEIVER USERS SET CLOCK MANUALLY" appears on the TV, then the Clock Set Up menu appears. If this happens, you must set the clock manually. (✈P.12)

Set Code

1 Press ▲ or ▼ to select the manufacturer's code number of your DBS tuner, referring to the table below.

DBS Tuner Manufacturers' Codes	
MAGNAVOX	42, 43
RCA	40, 44

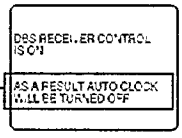
2 Press ▶/OK.
3 Wait for about a few seconds.
The following menu appears.



- If channel 205 is automatically selected on your DBS tuner, go to step 6.
- If channel 205 is not automatically selected on your DBS tuner, press ▲ or ▼ to select "NO" then press ▶/OK. Repeat step 5 using another code for your DBS tuner.

Confirm Setting

1 Press ▲ or ▼ to select "YES."
2 Press ▶/OK.
The following display appears.



This message appears if you select any channel from 03 or 04 as the output channel in step 4, Auto Clock will be turned off. (✈P.12)

Note:
If the channel does not change to channel 205 on your DBS tuner with any code entered in step 5. The controller will not change the channel on the DBS tuner during a timer recording.
In this case, you must select a channel to record on the DBS tuner before a timer recording begins. Leave the DBS tuner turned on.
Make sure to select the output channel of the DBS tuner (03 or 04: channel you have set on the DBS tuner) when programming a timer recording.

BEFORE REQUESTING SERVICE

Check the following points once again if you are having some difficulties with your VCR.

IMPORTANT

Periodic maintenance is required in order to maintain the VCR's continuous excellent performance. After a period of time the video heads will require replacement. If cleaning or replacement of the video heads is required, this service should be performed at an authorized video system service center.

Power	Correction
No power.	• Check that the AC power cord is correctly connected to an AC outlet. • Check that the VCR is turned on.
Recording & Playback	**Correction**
TV programme cannot be recorded.	• Check the connections between the VCR, the antenna, and the TV. • Make sure that the record tab on the back of the cassette is not removed. (→P.14)
Timer recording cannot be performed.	• Set the timer on-time and timer off-time correctly. (→P.19) • Make sure that the VCR is turned off after setting is made. (→P.22) • Timer recording may not be performed or stopped if a power interruption occurs before or during timer recording. If the power resumes within one minute, timer recording will also resume.
There is no playback picture, or the playback picture is noisy or contains streaks.	• Select your video channel correctly. • Press VCR/TV so that the VCR indicator lights up. • Adjust the tracking slowly in either direction. (→P.18)
During a still or slow motion picture, the picture may contain some vertical jitter when using a TV which has an automatic vertical hold control.	• Adjust the vertical hold control manually on the TV, if available.
If the top of your playback picture waves back and forth excessively.	• Because the VCR playback signal is not as stable as an off-the-air TV signal, the top of your TV screen may be bent or unstable during playback. To solve this problem, slowly turn the horizontal hold control on your TV to correct the wavy picture. If your TV does not have the horizontal hold control or adjusting the control does not help, contact your local TV service center.
Remote Control	**Correction**
The remote control cannot work.	• Aim the remote control directly at the remote sensor on the VCR. • Avoid all obstacles which may interfere with the signal path. • Inspect or replace the batteries. (→P.9) • Make sure batteries are inserted correctly. (→P.9)

Miscellaneous	Correction
You cannot watch TV.	• Press VCR/TV so that the VCR indicator goes off.
A cassette cannot be inserted.	• Insert the cassette with the window side up and the record tab facing you. • Check that a cassette tape is not already inserted. Press EJECT ⏏.
The cassette does not eject.	• Check that the AC power cord is correctly connected to an AC outlet. • If the ⏲ (Timer) indicator is lit on the display, press POWER to cancel timer recording, then press EJECT ⏏.
The cassette ejects when you press REC/OTR, or when you press POWER to set timer recording.	• Check that the record tab on the back of the cassette is not removed. (→P.14)

SPECIFICATIONS

General

Mains voltage	USA and Canada : AC120V~ Other countries : VAC110V-127-240V
Mains frequency	USA and Canada : 60 Hz Other countries : 50/60 Hz
Power consumption	Approx. 28 watts
Ambient temperature	41°F(5°C) to 104°F(40°C)
Relative humidity	10% to 80%
Dimensions	Approx. 435(W) x 98(H) x 343(D) mm
Mass	Approx. 3.3kg
Position for use	Horizontal
Video output channel	Channel 3 or 4 (selectable)
Number of pre-programmable memory blocks	8
Number of days in advance	365 or every day, or every week

Tuner

Video signal	NTSC
Broadcast channels	VHF 2 – 13, UHF 14 – 69
CATV channels	Mid-band: A — I Super-band: J — W Hyper-band: AA — EEE Low band: A5 — A1 Ultra-band: 65 – 125

Video

Input (VIDEO IN)	0.5 to 2.0 Vp-p, 75 ohms
(S-VIDEO)	(Y: luminance): 1 Vp-p/75 ohms (C: chrominance, burst): 0.286 Vp-p/75 ohms
Output (VIDEO OUT)	1.0±0.2 Vp-p, 75 ohms
(S-VIDEO)	(Y: luminance): 1 Vp-p/75 ohms (C: chrominance, burst): 0.286 Vp-p/75 ohms
Resolution	Better than 240 lines
Signal/noise ratio	Better than 43 dB

Audio

Input (AUDIO IN)	–8 dBs, 50k ohms (0dBs=0.775 Vrms)
Output (AUDIO OUT)	–6 dBs, 1k ohms (0dBs=0.775 Vrms)

Accessories supplied

Remote control unit
Cable box controller
RF coaxial cable
S-video cable
Batteries – R6(SUM-3)/AA (only for checking operations)
Conversion plug
Backup battery – CR2025

Design and specifications are subject to change without notice.

SAFETY INSTRUCTIONS

Read before operating equipment.

1. **Read Instructions** – Read all of the safety and operating instructions before you operate the appliance.
2. **Keep Instructions** – Keep the safety and operating instructions for future reference.
3. **Heed Warnings** – Adhere to all warnings on the appliance and in the operating instructions.
4. **Follow Instructions** – Follow all operating and use instructions.
5. **Cleaning** – Unplug this video product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
   Exception: A product that is meant for uninterrupted service and for some specific reason, such as the possibility of the loss of an authorization code for a cable TV converter, is not intended to be unplugged by the user for cleaning or any other purpose, may exclude the reference to unplugging the appliance in item 5.
6. **Attachments** – Do not use attachments not recommended by the video product manufacturer. They may be hazardous.
7. **Water and Moisture** – Do not use this video product near water – for example, near a bath tub, wash bowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, etc.
8. **Accessories** – Do not place this video product on an unstable cart, stand, tripod, bracket, or table. The video product may fall, causing serious damage to the appliance. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the video product. Any mounting of the appliance should follow the manufacturer's instructions and should use a mounting accessory recommended by the manufacturer. Move an appliance and cart combination with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

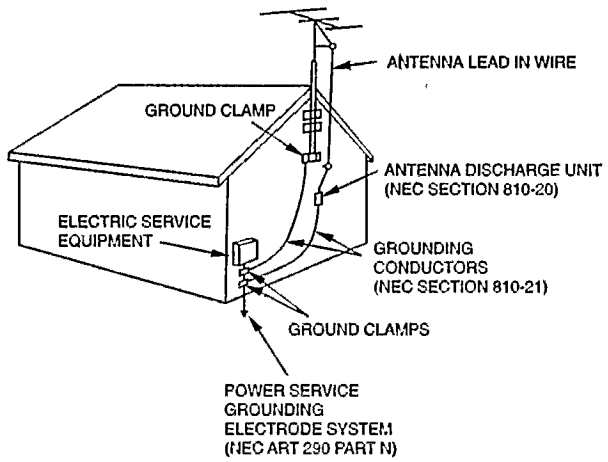
9. **Ventilation** – Slots and openings in the cabinet are provided for ventilation, to ensure reliable operation of the video product, and to protect it from overheating. Do not block or cover these openings. Do not block the openings by placing the video product on a bed, sofa, rug, or other similar surface. Do not place this video product near or over a radiator or heat register. Do not place this video product in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.
10. **Power Sources** – Operate this video product only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your appliance dealer or local power company. For video products intended to operate from battery power, or other sources, refer to the operating instructions.
11. **Grounding or Polarization** – This video product has a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, reverse the plug. If the plug still does not fit, ask your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
12. **Power Cord Protection** – Route power supply cords so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
13. **Outdoor Antenna Grounding** – If you connect an outside antenna or cable system to the video product, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Section 810 of the National Electrical Code, ANSI/NFPA No. 70, provides information with respect to proper grounding of the mast and supporting

structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. (See Figure 1.)

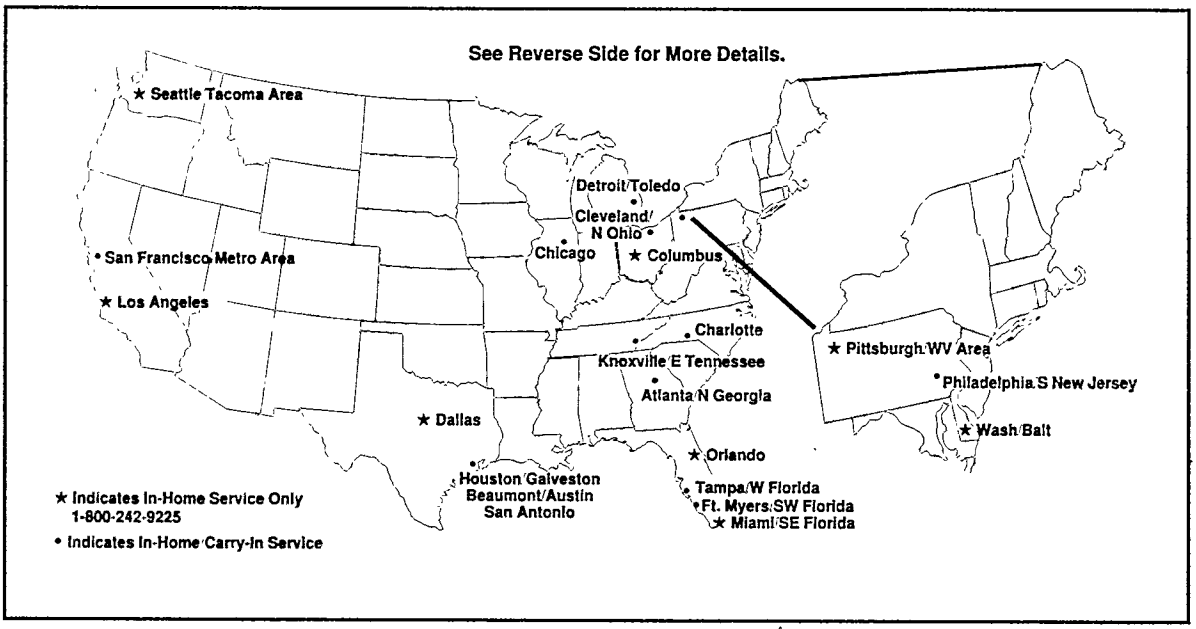
14. **Lightning** – For added protection of this video product receiver during a lightning storm, or when it is left unattended and unused for a long time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the video product due to lightning and power-line surges.
15. **Power Lines** – Do not locate an outside antenna system near overhead power lines or other electric light or power circuits or where it can fall into such power lines or circuits. When installing an outside antenna system, refrain from touching such power lines or circuits, as contact with them might be fatal.
16. **Overloading** – Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.
17. **Object and Liquid Entry** – Never push objects of any kind into this video product through openings as they may tough dangerous voltage points or short out parts, resulting in a fire or electric shock. Never spill liquid of any kind on the video product.
18. **Servicing** – Do not attempt to service this video product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
19. **Damage Requiring Service** – Unplug this video product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
    a. When the power-supply cord or plug is damaged.
    b. If liquid spills or objects fall into the video product.
    c. If the video product is exposed to rain or water.
    d. If the video product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions. An improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the video product to its normal operation.
    e. If the video product is dropped or the cabinet is damaged.
    f. When the video product exhibits a distinct change in performance, this indicates a need for service.
20. **Replacement Parts** – when replacement parts are required, be sure the service technician uses replacement parts specified by the manufacturer or which have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.
21. **Safety Check** – Upon completion of any service or repairs to this video product, ask the service technician to perform safety checks to determine that the video product is in proper operating condition.
22. **Heat** – Situate this video product away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

FIGURE 1

EXAMPLE OF ANTENNA GROUNDING AS PER NATIONAL ELECTRICAL CODE (NEC)



Philips Consumer Electronics Company
Factory Service Center Locations



NOTE: If you reside in one of our Philips Factory Service Branch areas (see directory on back), you can contact the nearest Service Branch to obtain efficient and expedient repair for your product. If your product is In-Warranty, you should have proof-of-purchase to ensure No Charge Service. For Out-of-Warranty service, call the location nearest you.

NOTA: Si vous résidez dans une des régions desservies par une succursale de service après vente du fabricant Philips (voir liste ci-dessous), vous pourrez contacter la branche de service après vente la plus près de chez vous pour obtenir un service après vente rapide et efficace. Si le produit est sous garantie, il suffira de présenter une preuve d'achat pour bénéficier d'un service sans frais. Pour les produits non couverts par la garantie, contactez le centre le plus près de chez vous.

NOTA: Si Ud. reside en una de nuestras zonas para sucursales Philips de servicio al de fábrica (ver directorio más abajo), Ud. puede comunicarse con la sucursal de servicio más cercana para obtener una reparación oportuna y eficaz de su producto. Si su producto está todavía bajo garantía, Ud. debe presentar comprobante de compra para no ocasionar ningunos cargos por servicio. Para servicio después del vencimiento de la garantía, llame al lugar más cercano de los abajo indicados.

In Canada

To obtain efficient and expedient carry-in, mail-in, or in-home service for your product,
please contact Philips at: 1-800-661-6162 (French speaking)
1-800-363-7278 (English speaking)

Au Canada

Comment obtenir le service après-vente pour les produits apportés ou envoyés par la poste à notre centre de service ou le service à domicile
Veuillez contacter philips á: 1-800-661-6162 (Francophone)
1-800-363-7278

En el Canadá

Cómo recibir servicio efficiente para su producto, en persona, por correo o a domicillo
Favor de comunicarse con Philips al: 1-800-661-6162 (francófono)
1-800-363-7278 (anglófono)

QUALITY SERVICE IS AS CLOSE AS YOUR TELEPHONE! SIMPLY LOOK OVER THE LIST BELOW FOR THE NUMBER OF A FACTORY SERVICE CENTER NEAR YOU. YOUR PRODUCT WILL RECEIVE EFFICIENT AND EXPEDIENT CARRY-IN, MAIL-IN, OR IN-HOME SERVICE, AND YOU WILL RECEIVE PEACE OF MIND, KNOWING YOUR PRODUCT IS BEING GIVEN THE EXPERT ATTENTION OF PHILIPS' FACTORY SERVICE. AND, IF THE PHONE NUMBER LISTED FOR YOUR AREA IS LONG DISTANCE, CALL 1-800-242-9225 FOR FACTORY SERVICE.

COMMENT OBTENIR NOTRE SERVICE APRÈS VENTE RAPIDE ET EFFICACE SOIT PAR COURRIER, À DOMICILE, OU EN SE PRÉSENTANT À UN CENTRE DE SERVICE PHILIPS. PLUS DE 600 CENTRES DE RÉCEPTION DE PRODUITS À RÉPARER À TRAVERS LE PAYS: CONTACTER LE CENTRE DE SERVICE AUX CONSOMMATEURS LE PLUS PROCHE POUR SAVOIR L'EMPLACEMENT DE CES DÉPÔTS DANS UN RAYON DE 50 À 75 MILES (80 KM À 120 KM) DU CENTRE DE SERVICE LOCAL.

CÓMO OBTENER UN SERVICIO OPORTUNO Y EFICIENTE POR CORREO, EN CASA O EN PERSONA PARA SU PRODUCTO A TRAVÉS DE UN CENTRO PHILIPS DE SERVICIO. MAS DE 600 SITIOS POR TODO EL PAIS PARA LA RECEPCION DE PRODUCTOS NECESITADOS DE REPARACIONES: COMUNICARSE CON EL CENTRO DE SERVICIO DE FABRICA MAS CERCANO PARA ESTOS LUGARES DENTRO DE UN RADIO DE 80 A 120 KM (50 A 75 MILLAS) DEL CENTRO DE SERVICIO LOCAL.

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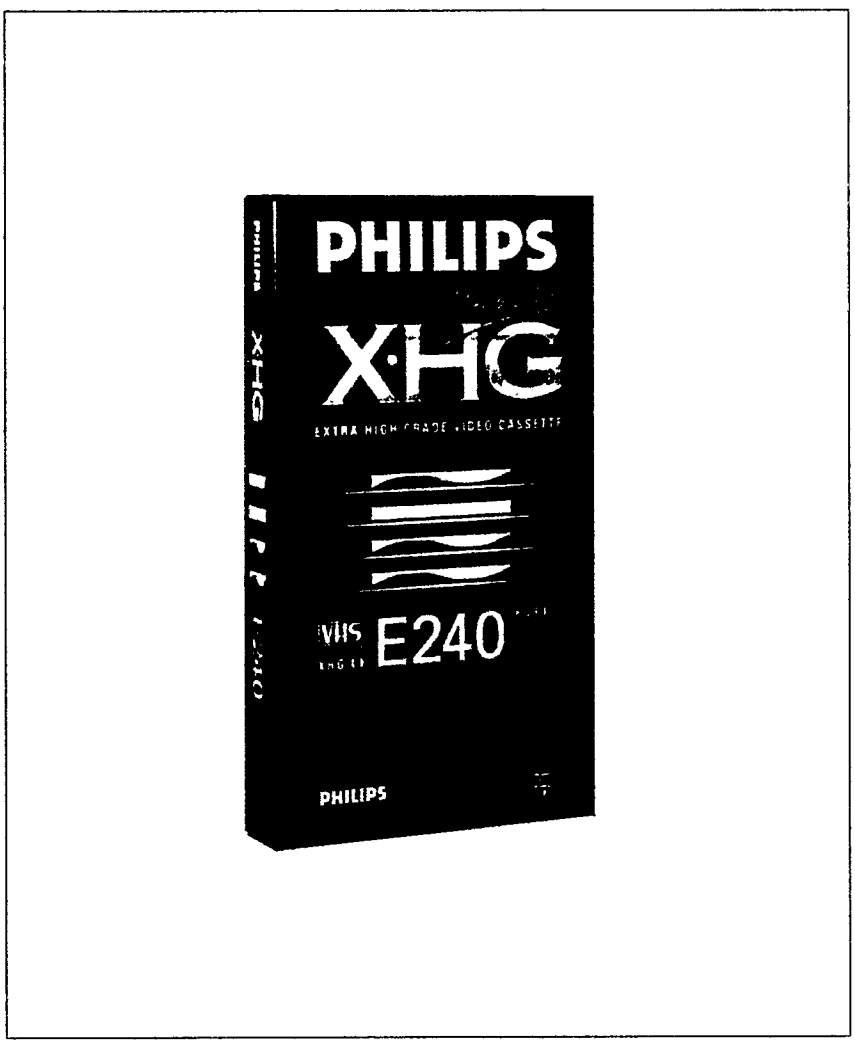

Philips offers a full range of High Grade & Extra High Grade Video Cassettes.

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